

## **AGENDA**

### **TRANSPORTATION ADVISORY COMMITTEE Monday, September 23, 2019 1:30 p.m.**

**1001 17<sup>th</sup> St.  
1<sup>st</sup> Fl. Aspen/Birch Conference Rm.**

1. Call to Order
2. Public Comment
3. August 26, 2019 TAC Meeting Summary  
(Attachment A)

#### **ACTION ITEMS**

4. Discussion on recommendations for amendments to the 2020-2023 Transportation Improvement Program (TIP)  
(Attachment B) Todd Cottrell
5. Discussion on recommendations of projects to be funded through the Community Mobility Planning and Implementation (CMPI) set-aside of the 2020-2023 Transportation Improvement Program (TIP)  
(Attachment C) Emily Lindsey

#### **INFORMATIONAL ITEMS**

6. Briefing on Central I-25 PEL (Planning and Environmental Linkages)  
(Attachment D) Steve Cook – Steve Sherman, CDOT
7. Briefing on Post Transportation Improvement Program (TIP) Assessment  
(Attachment E) Todd Cottrell
8. Briefing on Updates for the 2050 Metro Vision Regional Transportation Plan (MVRTP)  
(Attachment F) Jacob Riger
9. Briefing on the DRCOG Regional Transportation Operations (RTO) Program  
(Attachment G) Steve Cook
10. Briefing on State Transportation Funding Allocation  
(Attachment H) Ron Papsdorf

#### **ADMINISTRATIVE ITEMS**

11. Member Comment/Other Matters
12. Next Meeting – October 28, 2019
13. Adjournment

Persons in need of auxiliary aids or services, such as interpretation services or assisted listening devices, are asked to contact DRCOG at least 48 hours in advance of the meeting by calling (303) 480-6744.



**ATTACH A**

ATTACHMENT A

MEETING SUMMARY  
**TRANSPORTATION ADVISORY COMMITTEE**  
**Monday, August 26, 2019**

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**MEMBERS (OR VOTING ALTERNATES) PRESENT:**

Melanie Sloan	Adams County
Mac Callison (Alternate)	Arapahoe County-City of Aurora
Bryan Weimer	Arapahoe County
Megan Davis	Boulder County-City of Louisville
Sarah Grant	Broomfield, City and County
Kent Moorman	Adams County-City of Thornton
David Gaspers	Denver, City and County
Janice Finch	Denver, City and County
Ron Papsdorf	Denver Regional Council of Governments
John Cotten (Chair)	Douglas County-City of Lone Tree
Phil Greenwald (Alternate)	Boulder County-City of Longmont
Tim Hester	Aviation
Greg Fischer	Freight
Andrea LaRew	Business
Rick Pilgrim	Environmental
Carson Priest	TDM/Nonmotorized
Hank Braaksma	Non-RTD Transit
Jim Eussen (Alternate)	CDOT Region 4
Steve Durian	Jefferson County
Stephen Strohming	Non-MPO
Amanda Brimmer (Alternate)	Regional Air Quality Council
Bill Sirois (Alternate)	Regional Transportation District
Sylvia Labrucherie	Seniors
Kevin Ash	Weld County-Town of Frederick

**OTHERS PRESENT:**

Aaron Bustow (Alternate)	FHWA
Eugene Howard (Alternate)	Denver, City and County
Tom Reiff (Alternate)	Douglas County-Town of Castle Rock
Chris Hudson (Alternate)	Douglas County-Town of Parker
Kate Williams (Alternate)	Seniors

Public: Myron Hora, WSP USA; Alix McGlothan, Brain Injury Alliance; Bill Van Meter, RTD; Ted Heyd, Alta Planning & Design; Danny Herrmann, JoAnn Mattson, Jordan Rudel, CDOT Region 1; Charles Meyer, CDOT; Jamie Hartig, Douglas County; Lisa Nguyen, DEN; Chris Primus, HDR

DRCOG staff: Jacob Riger, Todd Cottrell, Steve Cook, Sang Gu Lee; Robert Spotts; Mark Northrop; Matthew Helfant, Melinda Stevens, Emily Lindsey, Beth Doliboa, Greg MacKinnon, Derrick Webb

Call to Order

Chair John Cotten called the meeting to order at 1:30 p.m.

Public Comment

There was no public comment.

Chair Cotten introduced the following new TAC members:

- Phil Greenwald (Boulder County-City of Longmont)
- Sarah Grant (City and County of Broomfield)
- Tim Hester-DEN (Aviation)
- Andrea LaRew-NW Douglas County Economic Development Corporation (Business)
- Carson Priest-Smart Commute Metro North (TDM/Nonmotorized)
- Heather Paddock (CDOT-Region 4 Transportation Director)

Melinda Stevens was also introduced as the new Division Assistant for the Transportation Planning & Operations Division at DRCOG

Summary of July 22, 2019 meeting

The meeting summary was accepted.

**ACTION ITEMS**

Discussion on recommendations for funding TIP Human Services Transportation Set-Aside (HST) projects for calendar year 2020.

Matthew Helfant presented the 2020 HST Set Aside Program of the 2020-2023 Transportation Improvement Program (TIP). In 2018, a set-aside of \$4 million over four years for HST was created as part of the FY 2020-2023 TIP Policy. The new HST set-aside addresses the Board-adopted 2020-2023 TIP focus area of improving mobility infrastructure and services for vulnerable populations (seniors, individuals with disabilities, etc.)

Mr. Helfant noted this is a pilot joint funding call with CDOT to also include FTA 5310 funding together with HST. TAC is being asked to approve only the proposed HST funding allocations as CDOT will approve the FTA 5310 funding allocations. Matthew then discussed the work of the Project Review Panel to score the applications and make the following HST project funding recommendations:

Agency	Project Type	HST Award	HST Award for Local Share	HST Total Award
Douglas County	Operating	\$ 137,868.00	\$ -	\$ 137,868.00
Boulder County	Operating	\$ 177,088.00	\$ -	\$ 177,088.00
City of Boulder	Operating	\$ 17,250.00	\$ -	\$ 17,250.00
Via Mobility Services	Operating	\$ 42,613.50	\$ -	\$ 42,613.50
Via Mobility Services	Replacement - Body on Chassis	\$ 87,467.00	\$ -	\$ 87,467.00
Via Mobility Services	Replacement - Van	\$ 58,190.00	\$ -	\$ 58,190.00
City of Broomfield	1 Vehicle Expansion	\$ -	\$ 12,232.80	\$ 12,232.80
City of Broomfield	Equipment	\$ -	\$ 5,054.40	\$ 5,054.40
Colorado Nonprofit Development Center (DRMAC)	Mobility Management	\$ -	\$ 60,000.00	\$ 60,000.00
Seniors Resource Center	Mobility Management	\$ -	\$ 50,000.00	\$ 50,000.00
Seniors Resource Center	Operating	\$ -	\$ 100,000.00	\$ 100,000.00
Seniors Resource Center	Van Expansion	\$ -	\$ 9,353.88	\$ 9,353.88
Seniors Resource Center	Van Expansion	\$ -	\$ 9,353.88	\$ 9,353.88
Seniors Resource Center	BOC Expansion	\$ -	\$ 12,584.48	\$ 12,584.48
Seniors Resource Center	Van Expansion	\$ 52,372.00	\$ 9,353.88	\$ 61,725.88
Seniors Resource Center	Van Expansion	\$ 52,372.00	\$ 9,353.88	\$ 61,725.88
<b>Total Available HST-FASTER Funding</b>		<b>\$ 1,000,000.00</b>		
<b>Total HST-FASTER Funding to Projects</b>		<b>\$ 902,507.70</b>		
<b>Remaining Balance of HST-FASTER Funding</b>		<b>\$ 97,492.30</b>		
<b>Purple = Must be funded in HST-FASTER</b>				
<b>Orange = Funding state and local share with HST-FASTER</b>				
<b>Remaining balance to cover DRCOG costs to administer HST-FASTER projects</b>				

Hank Braaksma MOVED to recommend approval of the 2020 HST projects as recommended by the CDOT/DRCOG Joint Call for Projects Peer Review Panel. The motion was seconded and passed unanimously.

### **INFORMATIONAL ITEMS**

#### **Briefing on FasTracks Initial Unfinished Corridors**

Bill Van Meter of RTD presented on this topic. The RTD Board recently directed staff to report on unfinished FasTracks corridors. This report is the beginning of a dialogue with the RTD Board, stakeholders, and the public about possibilities for advancing the unfinished corridors. Mr. Van Meter presented several conceptual scenarios for finishing the corridors, and the timing and other implications of each scenario.

John Cotten asked what methods RTD used to project the revenue growth. Mr. Van Meter stated that the sales and use tax forecasts were produced by CU Leeds School of Business, which used different inputs in the econometric modeling based on information from DRCOG's projections regarding population, employment, and changes in demographic characteristics. For the ridership portion, DRCOG models were used again (population, employment, and changes in demographic characteristics), along with CPI forecasts from Moody's.

Phil Greenwald asked why property wasn't looked at regarding COPs (Certificates of Participation). Mr. Van Meter replied most of RTD's available property is already leveraged in COPs to fund the North Metro Line. They are either already restricted or are already leveraged.

Rick Pilgrim asked if the RTD Board showed any indication as to which of the scenario concepts they were leaning towards and what the timeline of completion looks like. Mr. Van Meter replied the Board has shown some concern about the prospect of raising taxes.

Mac Callison asked if this information has been presented to other groups within the region and what the timeline for these presentations looks like. Mr. Van Meter replied he has given a version of this presentation to others, while Dave Genova will be presenting to the DRCOG Board Work Session in early September.

Jacob Riger asked for clarification on how macroeconomics is affecting RTD's budget given the region's robust economy. Mr. Van Meter replied that even though sales and tax revenues have increased, operating costs and the persistent driver shortage continue to negatively impact RTD's budget.

Melanie Sloan asked to what extent RTD is examining the potential funding solutions to complete the unfinished corridors, and how RTD will be finding out what the tolerance/interest is from the public for specific funding solutions. Mr. Van Meter replied the staff suggestions that are within RTD's control have been investigated more closely. Others are outside of RTD's direct control, such as marijuana tax dollars.

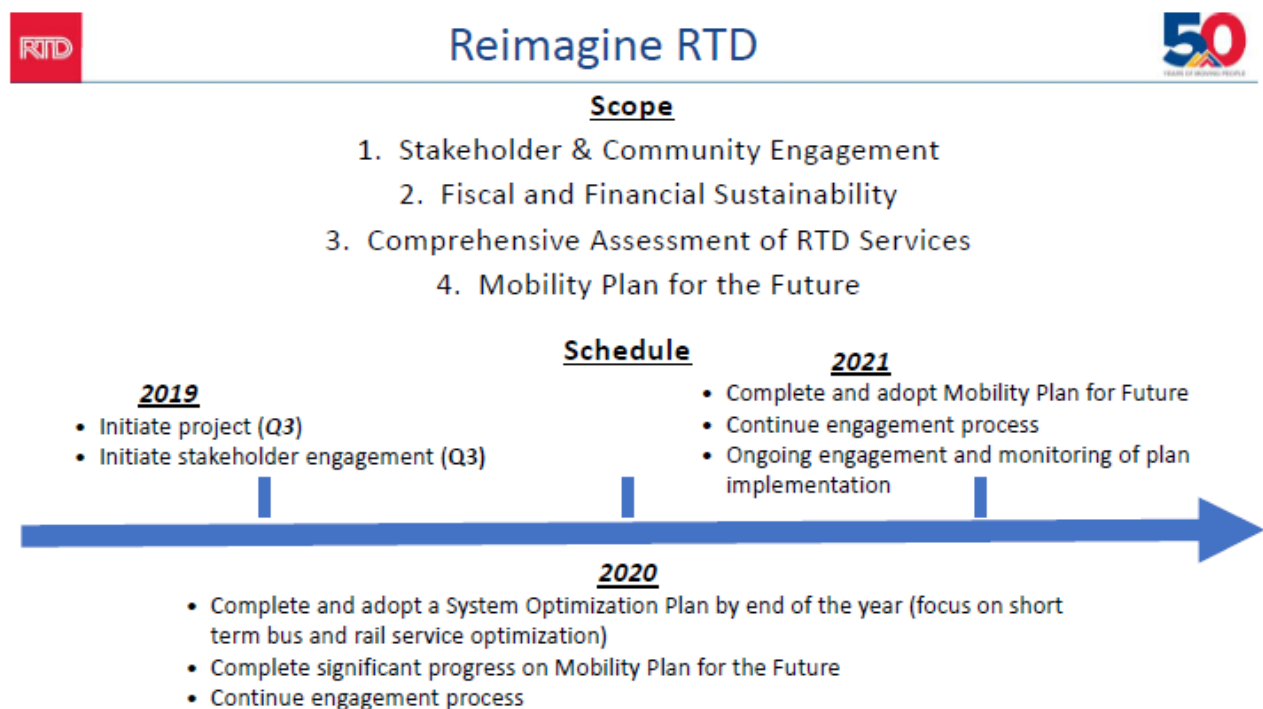
Ron Papsdorf asked for clarification on if the sales tax for FasTracks expires (sunsets). Mr. Van Meter replied that it eventually will partially expire when the entire FasTracks corridors are fully operational, and a portion can be maintained until all debt that was issued has been paid off. Mr. Papsdorf wanted to know what issues RTD might face, specifically regarding receiving funds/loans from other jurisdictions that want to accelerate the completion of certain corridors. Mr. Van Meter stated these jurisdictions cannot loan funds to RTD without TABOR authority.

Sylvia Labrucherie asked how concerned Mr. Van Meter is about the future availability of federal funding in general. Mr. Van Meter stated RTD forecasts a stable flow of continued federal funding in the long term, recognizing that it can vary in the short term.

#### Briefing on Reimagine RTD

Bill Van Meter explained RTD is undertaking a two-year planning process to better understand current and future transportation needs in the Denver region and RTD's role in meeting those needs. This will include ideas on how to redesign its service, programs, and funding to enhance the customer experience. The Reimagine RTD process will take into consideration existing bus and rail services, along with existing future projects (including the remaining FasTracks projects).

The following timeline summarizes the planning process:



Bill Sirois noted that RTD will be using the sub-regional county transportation forums to help populate the advisory committee and technical working group for stakeholder engagement as part of T2.

#### Briefing on DRCOG Regional Vision Zero Plan & CDOT Strategic Transportation Safety Plan

Beth Doliboa briefed the committee on the RVZ Plan. Vision Zero is the core principal that "it can never be ethically acceptable that people are killed or seriously injured when moving within the road transport system." The goals for DRCOG's Regional Vision Zero Plan are to:

- Reduce fatalities and serious injuries in the Denver Region
- Support DRCOG's various safety performance measures and targets
- Increase awareness of Vision Zero to influence safer behaviors on regional roadways
- Provide strategies and a toolkit to DRCOG's 58 local jurisdictions to encourage safety in planning and design of the regional transportation system

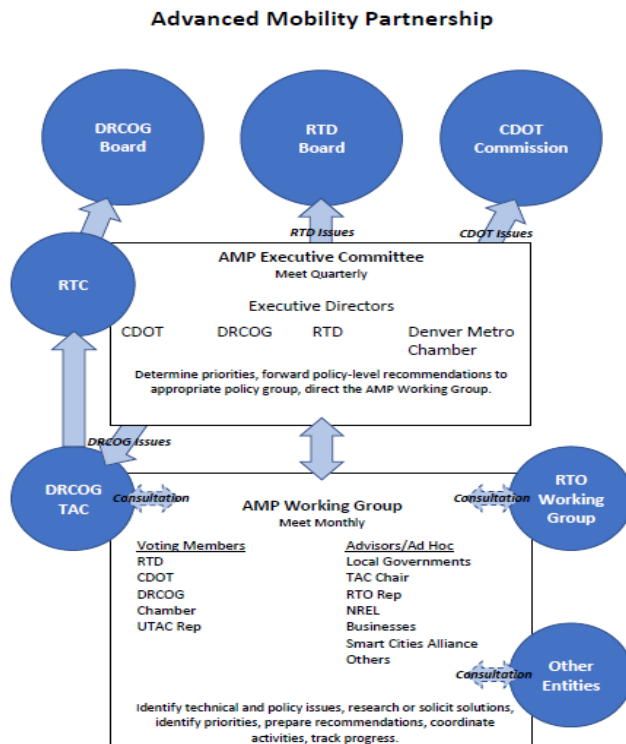
As part of the RVZ Plan, DRCOG has created a [Vision Zero website](#), a [short video](#), and a comprehensive Regional Vision Zero Stakeholder Committee.

Charles Meyer from CDOT & Chris Primus from HDR discussed CDOT's just-initiated Strategic Transportation Safety Plan (STSP). They discussed areas of coordination with the RVZ Plan since both plans are on similar schedules.

Phil Greenwald asked if the RVZ Plan is trying to get cities to come up with and enforce regulations or if it is more of an advisory document. Ms. Doliboa stated RVZ is not meant to be directive, but intended to provide information, education, and toolkit resources to help local governments advance safety in their own jurisdictions.

### Briefing on Mobility Choice Blueprint Advanced Mobility Partnership

Jacob Riger updated the committee on the Advanced Mobility Partnership (AMP) recommendation from the Mobility Choice Blueprint Study. DRCOG has been working with CDOT, RTD, and other stakeholders to define the AMP's structure, roles, members, and relationship to each agency's planning process and committees/Board structure. Mr. Riger presented the following illustration to help visualize current thinking about the AMP:



### ADMINISTRATIVE ITEMS

#### Member Comment/Other Matters

Ron Papsdorf announced the RTC and the Board approved the 2020-2023 TIP and acknowledged everyone for their hard work on the new TIP.

The meeting adjourned at 3:15 p.m. The next meeting is scheduled for September 23, 2019.

# ATTACH B

## ATTACHMENT B

To: Chair and Members of the Transportation Advisory Committee

From: Todd Cottrell, Senior Planner, Short Range Transportation Planning  
(303) 480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Action	4

### SUBJECT

*2020-2023 Transportation Improvement Program (TIP) amendments.*

### PROPOSED ACTION/RECOMMENDATIONS

DRCOG staff recommends approval of the proposed amendments because they comply with the current TIP amendment procedures, as contained within the Board-adopted [2020-2023 TIP Policy](#).

### ACTION BY OTHERS

N/A

### SUMMARY

DRCOG's transportation planning process allows for Board-approved amendments to the current Transportation Improvement Program (TIP) on an as-needed basis. Typically, these amendments involve the addition or deletion of projects, or adjustments to existing projects and do not impact funding for other projects in the TIP.

The TIP projects to be amended are shown below and listed in Attachment 1. The proposed amendments to the [2020-2023 Transportation Improvement Program](#) have been found to conform with the State Implementation Plan for Air Quality.

### TIP Amendments

- **New Project**      **US-36 Emergency Repairs**  
Add \$20.43 million State Transportation Commission Contingency funding for emergency repairs
- **2008-076**      **R1 FASTER Pool**  
Add 7 new pool projects using available TIP project funding
- **2016-035**      **30<sup>th</sup> St. and Colorado Ave. Bike/Ped Underpass**  
Roll funding forward to FY 2020 in new TIP and add \$8.050 million in local overmatch
- **2018-014**      **I-25 Capacity Improvements: Castle Rock to El Paso County Line**  
Add \$8 million in Federal Freight funding to add a southbound truck climbing lane and \$50,000 for various wildlife elements

### PREVIOUS DISCUSSIONS/ACTIONS

N/A

### PROPOSED MOTION

Move to recommend to the Regional Transportation Committee the attached amendments to the *2020-2023 Transportation Improvement Program (TIP)*.

### ATTACHMENT

1. Proposed TIP amendments

ADDITIONAL INFORMATION
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If you need additional information, please contact Todd Cottrell, Senior Planner, Short Range Transportation Planning, Transportation Planning and Operations Division at 303-480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org).

**New Project:** Adds \$20,430,000 in state Transportation Commission Contingency funds for emergency repairs on US-36

## New Project

Title: **US-36 Emergency Repairs**

Project Type: **Roadway Operational Improvements**

TIP-ID: **Request**

STIP-ID:

Open to Public:

Sponsor: **CDOT Region 1**

### Project Scope

Adds funds for emergency repairs on US-36. Per prior coordination, these funds have been STIPed and budgeted due to the emergency nature of this work.



Affected Municipality(ies)

Westminster

Affected County(ies)

Jefferson

### Performance Measures

- ☐ Bridge Condition
- ☐ Congestion
- ☐ Freight Reliability
- ☐ Pavement Condition
- ☐ Safety
- ☐ Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY20	FY21	FY22	FY23	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (TCC)		\$20,430	\$0	\$0	\$0		
Local		\$0	\$0	\$0	\$0		
Total	\$0	\$20,430	\$0	\$0	\$0	\$0	\$20,430

**2008-076:** Add 7 new pool projects using available funding**Existing**

Title: Region 1 FASTER Pool

Project Type: Safety

TIP-ID: 2008-076

STIP-ID: SR17002

Open to Public:

Sponsor: CDOT Region 1

**Project Scope**

Pool contains safety-related improvements and upgrades based on the new FASTER-Safety funding program (Colorado Senate Bill 108) in CDOT Region 1.



Affected County(ies)
Adams
Arapahoe
Broomfield
Denver
Douglas
Jefferson

Performance Measures
<input type="checkbox"/> Bridge Condition
<input checked="" type="checkbox"/> Congestion
<input checked="" type="checkbox"/> Freight Reliability
<input type="checkbox"/> Pavement Condition
<input checked="" type="checkbox"/> Safety
<input checked="" type="checkbox"/> Travel Time Reliability

All pool project funding depicts federal and/or state funding only.

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
SH-95 Intersection Improvements	64th Ave	\$851	Roundabouts at C-470 @ Ken Caryl and I-70 @ Harlan	Roundabouts - design	\$500	SH-2 and SH-95 Traffic Signals	SH-2 @ Arizona, Kentucky, Bayaud, 1st, SH-95 @ 14th, 16th, 44th, 38th, 1st	\$1,500
SH-121/72nd Ave	Right turn accel lanes	\$961	VMS for I-25 south of Denver	VMS Installation	\$500	SH-83	Mississippi to Colorado	\$3,500
SH-177 Sidewalks	Mineral Ave to Orchard Rd	\$521	Long mast arm signal design (3 locations)	88 @ Revere, 121 @ Ken Caryl, 121 @ C-470 (2)	\$2,000	SB I-225 Parker Rd Ramp	safety project	\$2,000
High Line Canal Trail Underpass	Parker/Mississippi	\$3,201	Aurora Signal Package	I-70 at Tower	\$600	I-25 SB Bottleneck	restripe from I-76 to I-70	\$1,200
Founders Pkwy Intersection Reconstruct	Crowfoot Valley Rd	\$1,602	SH-224 @ Dahlia St.	Traffic Signal Replacement	\$450	Aurora Signals 2019	SH-30 @ Jewell and Yale	\$500
Wadsworth TOD left turn protection	Girton, Eastman and Yale	\$200	Ramp Metering	I-76	\$1,500	Lakewood Safety Package 2020	I-70 @ Colfax, Colfax @ Quail, SH-8 @ Garrison, and SH-121 @ 1st Ave	\$4,960
FASTER Safety Design		\$4,000	US-285/SH-30	Resurfacing	\$1,400	I-70 and Kipling	Traffic signal replacement and access consolidation	\$2,000
SH-2 Traffic Signal Upgrades		\$440	North Signal Replacement Package	SH-128 @ Eldorado, SH-287 @ Midway, 6th, and SH-121 @ Ralston	\$1,000	6" Lane Lines Pavement Marking (2019-2021)	I-25, I-70, I-225, I-76, I-270	\$9,100
Wadsworth	Right Turn Lane Extensions	\$1,621	SH-40 and SH-121	Signal Improvements	\$900	SH-30 and Tower Improvements	Phase 1	\$691
I-70 between MP 252 & 255	Median Barrier	\$2,000	SH-391 (Kipling) @ 13th Ave and 13th Place	Intersection Improvements	\$660	SH-30 and Tower Improvements	Phase 2	\$719
SH 121 @ Deer Creek Canyon, C-470 @ Kipling, SH-95 @ WB I-76 Ramp Mod, SH-88 @ US 285, SH-93 @ Washington St, SH-177 @ Otero, SH-121 @ Chatfield	Traffic Signal Replacements	\$2,500	I-25 and Plum Creek/Meadows	Signal poles, storage, and left turn lane and restriping Improvements	\$2,300	US-285/SH-30 Resurfacing	Dahlia to Parker	\$1,200
SH-95 @ 1st Ave, 32nd Ave, 38th Ave, 46th Ave, Wellington Ave	Traffic Signal Replacements	\$2,000	I-70 EB Aux Lanes	Ward Rd to Kipling	\$2,300	Broadway Signal Replacement	at 62nd and 70th	\$1,000
US-85 @ Dartmouth	Hampden to Florida SUR	\$2,500	South Federal Blvd	safety improvements	\$300			

# ATTACHMENT 1

Policy Amendments – October 2019

2020-2023 Transportation Improvement Program

Amounts in \$1,000s	Prior Funding	FY20	FY21	FY22	FY23	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (Faster-S)		\$23,345	\$28,410	\$29,120	\$26,990		
Local		\$0	\$0	\$0	\$0		
Total	\$64,714	\$23,345	\$28,410	\$29,120	\$26,990	\$0	\$172,579

**Revised**

Facility Name	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)	Facility Name (Cont)	Start-At and End-At	Cost (1,000s)
SH-95 Intersection Improvements	64th Ave	\$851	Long mast arm signal design (3 locations)	88 @ Revere, 121 @ Ken Caryl, 121 @ C-470 (2)	\$2,000	Aurora Signals 2019	SH30 @ Jewell and Yale	\$500
SH-121/72nd Ave	Right turn accel lanes	\$961	Aurora Signal Package	I-70 at Tower	\$600	Lakewood Safety Package 2020	I-70 @ Colfax, Colfax @ Quail, SH8 @ Garrison, and SH121 @ 1st Ave	\$4,960
SH-177 Sidewalks	Mineral Ave to Orchard Rd	\$521	SH224 @ Dahlia St.	Traffic Signal Replacement	\$450	I-70 and Kipling	Traffic signal replacement and access consolidation	\$2,000
High Line Canal Trail Underpass	Parker/Mississippi	\$3,201	Ramp Metering	I-76	\$1,500	6" Lane Lines Pavement Marking (2019-2021)	I-25, I-70, I-225, I-76, I-270	\$8,100
Founders Pkwy Intersection Reconstruct	Crowfoot Valley Rd	\$1,602	US-285/SH-30	Resurfacing	\$1,400	SH-30 and Tower Improvements	Phase 1	\$691
Wadsworth TOD left turn protection	Girton, Eastman and Yale	\$200	North Signal Replacement Package	SH-128 @ Eldorado, SH-287 @ Midway, 8th, and SH-121 @ Ralston	\$1,000	SH-30 and Tower Improvements	Phase 2	\$719
FASTER Safety Design		\$4,000	SH-40 and SH-121	Signal Improvements	\$900	US-285/SH-30 Resurfacing	Dahlia to Parker	\$1,200
SH-2 Traffic Signal Upgrades		\$440	SH391 (Kipling) @ 13th Ave and 13th Place	Intersection Improvements	\$660	Broadway Signal Replacement	at 62nd and 70th	\$1,000
Wadsworth	Right Turn Lane Extensions	\$1,621	I-25 and Plum Creek/Meadows	Signal poles, storage, and left turn lane and restriping improvements	\$2,300	SH-93 Signal Package		\$2,500
I-70 between MP 252 & 255	Median Barrier	\$2,000	I-70 EB Aux Lanes	Ward Rd to Kipling	\$2,300	I-70 @ Sheridan and Harlan Safety		\$3,700
SH 121 @ Deer Creek Canyon, C-470 @ Kipling, SH-95 @ WB I-76 Ramp Mod, SH-88 @ US 285, SH-93 @ Washington St, SH-177 @ Otero, SH-121 @ Chatfield	Traffic Signal Replacements	\$2,500	South Federal Blvd	safety improvements	\$300	SH-75 Intersection Improvements	Bowles and Mineral	\$1,000
SH-95 @ 1st Ave, 32nd Ave, 38th Ave, 48th Ave, Wellington Ave	Traffic Signal Replacements	\$2,000	SH2 and SH95 Traffic Signals	SH2@Arizona, Kentucky, Bayaud, 1st. SH95@14th, 16th, 44th, 38th, 1st	\$1,500	C-470 and Ken Caryl	Intersection Improvements	\$5,000
US-85 @ Dartmouth	Hampden to Florida SUR	\$2,500	SH83	Mississippi to Colorado	\$3,500	C-470 and Morrison Rd	Intersection Improvements	\$5,000
Roundabouts at C-470 @ Ken Caryl and I-70 @ Harlan	Roundabouts - design	\$500	SB I-225 Parker Rd Ramp	safety project	\$2,000	SH-40 and SH-121	CDOT Traffic Signal Improvements	\$1,720
VMS for I-25 south of Denver	VMS Installation	\$500	I-25 SB Bottleneck	restripe from I-76 to I-70	\$1,200	Denver West Runaway Truck Ramp		\$5,000

Amounts in \$1,000s	Prior Funding	FY20	FY21	FY22	FY23	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
State (Faster-S)		\$23,345	\$28,410	\$29,120	\$26,990		
Local		\$0	\$0	\$0	\$0		
Total	\$64,714	\$23,345	\$28,410	\$29,120	\$26,990	\$0	\$172,579

**2016-035:** Move project and funding from the FY 2018 TIP to the FY 2020 TIP and add local overmatch to advertise the project

## Existing in 2018-2021 TIP

Title: **30th St and Colorado Ave Bike/Ped Underpass**

Project Type: **Bicycle and Pedestrian Projects (New)**

TIP-ID: **2016-035**

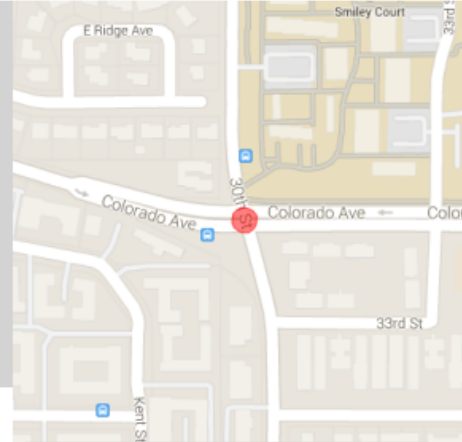
STIP-ID:

Open to Public: **2020**

Sponsor: **Boulder**

### Project Scope

This project constructs an underpass at 30th St and Colorado Ave. Additional items as part of the project include 10 ft wide multi-use path connections, ADA/AASHTO compliant lighting, way-finding signage with destination and distance information, and 20 bicycle parking spaces.



### Affected Municipality(ies)

Boulder

### Affected County(ies)

Boulder

### Project Phases

Year	Phase
2018	Initiate ROW
2019	Initiate Construction

### Performance Measures

- ☐ Bridge Condition
- ☐ Congestion
- ☐ Freight Reliability
- ☐ Pavement Condition
- ☐ Safety
- ☐ Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY18	FY19	FY20	FY21	Future Funding	Total Funding
Federal (CMAQ)		\$600	\$3,350	\$0	\$0		
State		\$0	\$0	\$0	\$0		
Local		\$700	\$2,350	\$0	\$0		
Total	\$1,000	\$1,300	\$5,700	\$0	\$0	\$0	\$8,000

## Revised in 2020-2023 TIP

Amounts in \$1,000s	Prior Funding	FY20	FY21	FY22	FY23	Future Funding	Total Funding
Federal (CMAQ)		\$3,950	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
Local		\$8,871	\$0	\$0	\$0		
Total	\$3,229	\$12,821	\$0	\$0	\$0	\$0	\$16,050

**2018-014:** Add federal Freight funding to add a southbound truck climbing lane and local funding for various wildlife elements

## Existing

Title: **I-25 Capacity Improvements: Castle Rock to El Paso County Line**

Project Type: **Roadway Capacity**

TIP-ID: **2018-014**

STIP-ID:

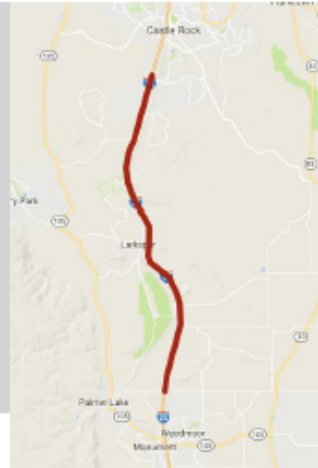
Open to Public: **2021**

Sponsor: **CDOT Region 1**

### Project Scope

Add one new express lane in each direction from Castle Rock to the El Paso County line.

Total CDOT project cost is approximately \$367 million and extends south of the DRCOG boundary to Monument.



### Affected County(ies)

Douglas

### Performance Measures

- ☒ Bridge Condition
- ☒ Congestion
- ☒ Freight Reliability
- ☒ Pavement Condition
- ☒ Safety
- ☒ Travel Time Reliability

Amounts in \$1,000s	Prior Funding	FY20	FY21	FY22	FY23	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (FR8)		\$0	\$0	\$0	\$0		
Federal (INFRA)		\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
State (FASTER-B)		\$0	\$0	\$0	\$0		
State (Faster-S)		\$0	\$0	\$0	\$0		
State (SB-1)		\$0	\$0	\$0	\$0		
State (SB267)		\$0	\$0	\$0	\$0		
State (Surface)		\$0	\$0	\$0	\$0		
Local		\$0	\$0	\$0	\$0		
Total	\$321,500	\$0	\$0	\$0	\$0	\$0	\$321,500

**Revised**

Amounts in \$1,000s	Prior Funding	FY20	FY21	FY22	FY23	Future Funding	Total Funding
Federal		\$0	\$0	\$0	\$0		
Federal (FR8)		\$8,000	\$0	\$0	\$0		
Federal (INFRA)		\$0	\$0	\$0	\$0		
State		\$0	\$0	\$0	\$0		
State (FASTER-B)		\$0	\$0	\$0	\$0		
State (Faster-S)		\$0	\$0	\$0	\$0		
State (SB-1)		\$0	\$0	\$0	\$0		
State (SB267)		\$0	\$0	\$0	\$0		
State (Surface)		\$0	\$0	\$0	\$0		
Local		\$50	\$0	\$0	\$0		
Total	\$321,500	\$8,050	\$0	\$0	\$0	\$0	\$329,550

**ATTACH C**

## ATTACHMENT C

To: Chair and Members of the Transportation Advisory Committee

From: Derrick Webb, Planner 303-480-6728 or [dwebb@drcoq.org](mailto:dwebb@drcoq.org); Emily Lindsey, Transportation Technology Strategist 303-480-5628 or [elindsey@drcoq.org](mailto:elindsey@drcoq.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Action	5

### SUBJECT

Recommendation of projects to be funded through the Community Mobility Planning and Implementation (CMPI) set-aside of the *2020-2023 Transportation Improvement Program* (TIP).

### PROPOSED ACTION/RECOMMENDATIONS

Staff recommends approval of the projects proposed by the CMPI Set-Aside Project Review Panel.

### ACTION BY OTHERS

May 15, 2019 Board of Directors approved the CMPI Set-Aside Eligibility Rules, Selection Process and Evaluation Criteria.

### SUMMARY

The 2020-2023 TIP Policy established \$4.8 million in federal funds for the CMPI Set-Aside over the four-year period. For the first two-year period (FY 2020 and 2021) the CMPI Set-Aside contains:

- \$1 million for small area planning and/or transportation studies; and
- \$1.4 million for small infrastructure projects.

In addition to this commitment, \$949,000 from previous calls and returned funds were rolled-in to the small infrastructure portion, bringing the total available for small infrastructure projects to \$2,349,000.

The purpose of the CMPI set-aside is to support small area planning and small infrastructure projects that contribute to the implementation of key outcomes within Metro Vision and the Metro Vision Regional Transportation Plan. In May 2019, DRCOG issued a call for letters of intent, full applications were due July 31, 2019. A total of 32 applications (14 planning, 18 small infrastructure) were submitted for consideration (Attachment 2). The total federal request for all projects was \$7,027,419 (33% planning, 67% small infrastructure).

After applications were received, staff convened an internal Project Review Panel, made up of staff from DRCOG's Executive Office, Regional Planning and Development and Transportation Planning and Operations divisions. The Project Review Panel convened twice, in August and September 2019, to review, discuss and rank projects to recommend to the TAC for funding. The Project Review Panel recommends the following projects for funding:

Planning		
Project Sponsor	Project Title	Recommended Award
Town of Castle Rock	Castle Rock Downtown Alley Master Plan	\$180,000
West Colfax BID	Colfax Viaduct Planning Study	\$200,000
City of Edgewater	Sheridan Corridor Master Plan: Sloan's Lake	\$140,220
City of Thornton	Eastlake Streetscape Conceptual Plan	\$144,880
Adams County	Southwest Adams County Sidewalk Community Prioritization Planning	\$35,000
City of Boulder	Curbside Management Policy and Program	\$248,370
Planning Recommendation Total		\$948,470
Planning Funding Available		\$1,000,000

Small Infrastructure		
Project Sponsor	Project Title	Recommended Award
RTD	RTD Multimodal Wayfinding System	\$240,000
City of Lakewood	Alameda Corridor Shared Use Path	\$336,000
City and County of Denver	Passenger Amenity Program	\$200,000
City of Westminster	US 36/Church Ranch Station Multimodal Access Improvements	\$82,790
City of Sheridan	Safe Stops Through Sheridan	\$158,046
City of Centennial	Orchard Road Trail	\$300,000
City of Littleton	Downtown Littleton Raised Pedestrian Crossings	\$214,160
City of Boulder	Boulder Enhanced Pedestrian/Bicyclist Crossings	\$230,000
City of Aurora	25 <sup>th</sup> Avenue Pedestrian Improvements	\$391,000
City of Thornton	Trail Wayfinding Signage	\$197,004*
Small Infrastructure Recommendation Total		\$2,349,000
Small Infrastructure Funding Available		\$2,349,000
*denotes partial funding, project can be scaled		

Upon approval by the Board, an administrative modification of the TIP will be conducted to amend the selected projects into the 2020–2023 TIP.

#### PREVIOUS DISCUSSIONS/ACTIONS

[May 6, 2019](#) – TAC recommended approval of the Eligibility Rules and Selection Process for the CMPI Set-Aside

[March 25, 2019](#) – TAC discussed CMPI Set-Aside

[February 25, 2019](#) – TAC discussed all FY 2020-2023 TIP set-asides

#### PROPOSED MOTION

Move to recommend to the Regional Transportation Committee the projects above be funded through the CMPI Set-Aside of the DRCOG *2020–2023 TIP*.

#### ATTACHMENT

1. Staff Presentation
2. CMPI Set-Aside Projects Submitted

#### ADDITIONAL INFORMATION

If you need additional information, please contact Derrick Webb, Planner at 303-480-6728 or [dwebb@drcog.org](mailto:dwebb@drcog.org) or Emily Lindsey, Transportation Technology Strategist 303-480-5628 or [elindsey@drcog.org](mailto:elindsey@drcog.org).



# FY2020-2021 Community Mobility Planning and Implementation

## Funding Recommendations

*Presented by:*

**Derrick Webb, AICP**

**Emily Lindsey, AICP**

September 23, 2019



# FY 2020-2023 TIP Set-Aside Programs

**Table 2. 2020-2023 TIP Set-Aside Programs**

Set-Aside Programs	4-Year DRCOG-allocated Funding Allocations for the <u>2020-2023 TIP</u>	Calls for Projects
<b>Community Mobility Planning and Implementation</b>	<b>\$4,800,000</b> <ul style="list-style-type: none"><li>• \$2,000,000 for small area planning and/or transportation studies</li><li>• \$2,800,000 for small infrastructure projects</li></ul>	Calls for Projects for <u>both</u> are tentatively scheduled for the summer of 2019 and 2021.
<u><b>TDM Services</b></u>	<b>\$13,400,000</b> <ul style="list-style-type: none"><li>• \$8,800,000 for the DRCOG Way to Go program</li><li>• \$2,800,000 for 7 regional TMAs partnership @ \$100,000/year</li><li>• \$1,800,000 for TDM non-infrastructure projects</li></ul>	Calls for Projects for the TDM non-infrastructure projects are tentatively scheduled for the summer of 2019 and 2021.
<u><b>Regional Transportation Operations &amp; Technology (traffic signals and ITS)</b></u>	<b>\$20,000,000</b>	Calls for Projects are tentatively scheduled for the Fall of 2019 and 2021.
<b>Air Quality Improvements</b>	<b>\$7,200,000</b> <p>Regional Air Quality Council (RAQC) will receive:</p> <ul style="list-style-type: none"><li>• \$4,800,000 for vehicle fleet technology</li><li>• \$1,800,000 for an ozone outreach and education program</li><li>• \$600,000 in FY20 for an ozone SIP modeling study</li></ul>	
<b>Human Service Transportation</b>	<b>\$4,000,000</b> <ul style="list-style-type: none"><li>• \$4,000,000 to improve service and mobility options for vulnerable populations by funding underfunded/underserved trips and rolling stock expansion.</li></ul>	Calls for Projects are tentatively scheduled for the summer of 2019 and 2021.



## CMPI Program Purpose and Goals

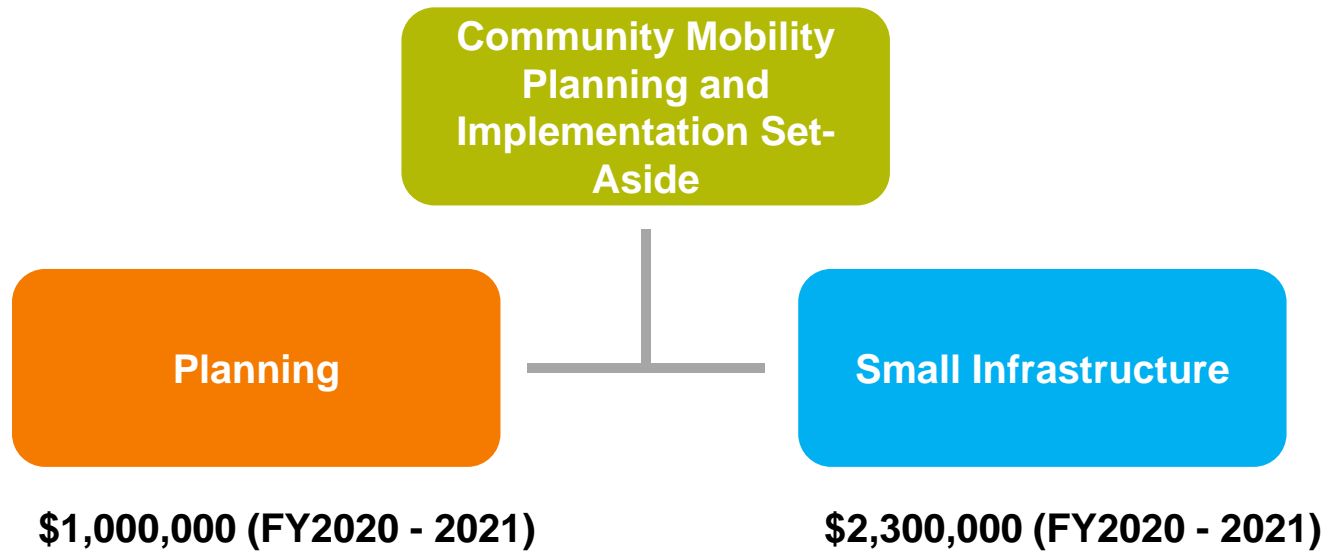
**Purpose:** to support planning and small infrastructure projects that contribute to the implementation of key outcomes within *Metro Vision* and the *Metro Vision Regional Transportation Plan*

### Program Goals

- Support diverse, livable communities
- Support the development of connected urban centers and multimodal corridors
- Support a transportation system that is well-connected and serves all modes of travel
- Support healthy and active choices
- Expand access to opportunity for residents of all ages, incomes and abilities



## Funding Availability and Requirements



Key points:

- No funding minimums or maximums
- Local cash match required: 17.21% of total project cost (federal share – 82.79%)



## Application Process Overview – Applications Received

### Application Timeline

- May 2019: DRCOG issued a call for letters of intent (*44 received*)
- June 2019: Letter of intent review/discussion w/sponsor
- July 2019: Full applications due
- August/September 2019: Review panel recommendation development

### Applications Received

- DRCOG received 32 applications – 14 planning/18 small infrastructure  
(see attachment 2)

**Total Federal Request:**  
**\$7,027,419**





## Application review process

- Internal Project Review Panel: Executive Office, Regional Planning and Development and Transportation Planning and Operation divisions
- Panel in August and September 2019 to review, discuss and rank projects
  - Panel members evaluated applications individually and then met with the entire panel to develop the funding recommendation

### Evaluation Criteria

- Project Type
- Partnerships and Collaboration
- Innovation and Transferability
- Alignment with CMPI Goals
- Alignment with Metro Vision



## Recommended Planning Projects

Project Sponsor	Project Title	Recommended Award
Town of Castle Rock	Castle Rock Downtown Alley Master Plan	\$180,000
West Colfax BID	Colfax Viaduct Planning Study	\$200,000
City of Edgewater	Sheridan Corridor Master Plan: Sloan's Lake	\$140,220
City of Thornton	Eastlake Streetscape Conceptual Plan	\$144,880
Adams County	Southwest Adams County Sidewalk Community Prioritization Planning	\$35,000
City of Boulder	Curbside Management Policy and Program	\$248,370

Planning Recommendation Total: \$948,470

Planning Funding Available: \$1,000,000

Remaining: \$51,530





## Recommended Small Infrastructure Projects

Project Sponsor	Project Title	Recommended Award
RTD	RTD Multimodal Wayfinding System	\$240,000
City of Lakewood	Alameda Corridor Shared Use Path	\$336,000
City and County of Denver	Passenger Amenity Program	\$200,000
City of Westminster	US36/Church Ranch Station Multimodal Access Improvements	\$82,790
City of Sheridan	Safe Stops Through Sheridan	\$158,046
City of Centennial	Orchard Road Trail	\$300,000
City of Littleton	Downtown Littleton Raised Pedestrian Crossings	\$214,160
City of Boulder	Boulder Enhanced Pedestrian/Bicyclist Crossings	\$230,000
City of Aurora	25 <sup>th</sup> Avenue Pedestrian Improvements	\$391,000
City of Thornton	Trail Wayfinding Signage	\$197,004*
	Small Infrastructure Recommendation Total:	\$2,349,000
	Small Infrastructure Funding Available:	\$2,349,000

*\* Denotes partial funding, project can be scaled*



## Proposed motion

Move to recommend to the Regional Transportation Committee the projects above be funded through the CMPI Set-Aside of the DRCOG *2020–2023 TIP*.

**Questions?**

Planning Projects Submitted				
Sponsor	Application Name	Requested Amount	Recommended Award	Score
Castle Rock	Castle Rock Downtown Alley Master Plan	\$ 180,000	\$ 180,000	87.7
West Colfax	Colfax Viaduct Planning Study	\$ 200,000	\$ 200,000	86.2
Edgewater	Sheridan Corridor Master Plan: Sloan's Lake	\$ 140,220	\$ 140,220	85.5
Thornton	Eastlake Streetscape Conceptual Plan	\$ 144,880	\$ 144,880	79.0
Adams County	Southwest Adams County Sidewalk Community Prioritization Planning	\$ 35,000	\$ 35,000	78.7
Boulder	Curbside Management Policy and Program	\$ 248,370	\$ 248,370	78.2
Thornton	York at 144th Station Area Master Plan	\$ 144,880	\$ -	76.5
Aurora	Aurora Industrial Area Multimodal Transportation Study	\$ 164,000	\$ -	72.5
Denver	Evans Ave Mobility Corridor: Multimodal Connections and Next Steps Study	\$ 200,000	\$ -	73.8
Boulder	30th Corridor Plan (Boulder Junction to SH 119)	\$ 320,000	\$ -	70.5
Denver	NW Mobility Network Plan and 38th Avenue Corridor Next Steps Study	\$ 200,000	\$ -	70.2
Littleton	Downtown Littleton's Streetscapes for Accessibility Plan	\$ 100,000	\$ -	69.2
Littleton	Downtown Littleton's Multimodal Circulation & Travel Demand Management Plan	\$ 150,000	\$ -	65.7
Commuting Solutions	Louisville Colorado Technology Center Micro-Transit Feasibility Study	\$ 74,511	\$ -	61.2
<b>Total Planning Awards</b>			<b>\$ 948,470</b>	

Small Infrastructure Projects Submitted				
Sponsor	Application Name	Requested Amount	Recommended Award	Score
RTD	RTD Multi-Modal Wayfinding System	\$ 240,000	\$ 240,000	82.0
Lakewood	Alameda Corridor Shared Use Path	\$ 336,000	\$ 336,000	81.2
Denver	Denver Passenger Amenity Program	\$ 200,000	\$ 200,000	80.2
Westminster	US36/Church Ranch Station Multimodal Access Improvements	\$ 82,790	\$ 82,790	79.0
Sheridan	Safe Stops Through Sheridan	\$ 158,046	\$ 158,046	78.0
Centennial	Orchard Road Trail	\$ 300,000	\$ 300,000	76.7
Littleton	Downtown Littleton Raised Pedestrian Crossings	\$ 214,160	\$ 214,160	76.5
Boulder	Boulder Enhanced Pedestrian/Bicyclist Crossings	\$ 230,000	\$ 230,000	75.3
Aurora	25th Avenue Pedestrian Improvements	\$ 391,000	\$ 391,000	75.3
Thornton	Trail Wayfinding Signage	\$ 250,000	\$ 197,004	74.8
Denver	Mobility Choice Network	\$ 400,000	\$ -	74.2
Aurora	Aurora Arts District - E. Colfax Corridor Streetscape Improvements	\$ 420,000	\$ -	68.7
Boulder	Boulder Junction Secure Bike and Ride Storage	\$ 162,000	\$ -	67.3
Aurora	Transit Orientated, On-demand Bicycle Lockers Pilot	\$ 45,534	\$ -	63.8
Littleton	Prince St. and Church Ave. Intersection Reconstruction	\$ 245,448	\$ -	58.7
Castle Rock	Castle Rock Alley Master Plan Implementation - Phase 1	\$ 535,000	\$ -	56.3
Superior	76th St/Sycamore St. Intersection Enhanced Pedestrian Protection	\$ 165,580	\$ -	56.0
Commerce City	Brighton Road Improvements between E14th Ave and E112th Ave	\$ 350,000	\$ -	48.0
<b>Total Small Infrastructure Awards</b>			<b>\$ 2,349,000</b>	

shaded green denotes recommended for funding

**ATTACH D**

## ATTACHMENT D

To: Chair and Members of the Transportation Advisory Committee

From: Steve Cook, Transportation Modeling and Operations Manager  
(303) 480-6749 or [scook@drcog.org](mailto:scook@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Informational	6

### SUBJECT

Briefing on CDOT Central I-25 Planning and Environmental Linkages (PEL) study alternatives.

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

CDOT has initiated the [I-25 Central PEL study](#) for the six-mile segment of I-25 between Santa Fe Drive and 20<sup>th</sup> Street in central Denver. Like other [PEL studies](#), this effort is considering environmental, community, economic, safety, and mobility goals in the planning process to develop project alternatives. The TAC received a previous briefing in October 2018.

The corridor includes a location (just south of Colfax Ave.) with one of the highest average daily traffic volumes in the state (~270,000 vehicles carrying over 350,000 people). However, I-25's geometry, bridges, and access points date from the 1950s Valley Highway era.

Several areas along the corridor include very large land redevelopment proposals. This PEL is also unique in that it intends to focus on the potential role of technology to address the corridor's traffic, safety, and mobility issues. The PEL study is anticipated to be completed in late 2019.

At the September TAC meeting, CDOT staff will provide an update on the I-25 Central PEL study with specific reference to alternatives being evaluated.

### PREVIOUS DISCUSSIONS/ACTIONS

[October 22, 2018](#) TAC

### PROPOSED MOTION

N/A

### ATTACHMENT

1. CDOT presentation

### ADDITIONAL INFORMATION

If you need additional information, please contact Steve Cook, Travel Model and Transportation Operations Manager, at 303-480-6749 or [scook@drcog.org](mailto:scook@drcog.org) or Steve Sherman, CDOT, at 303-512-5986 or [steve.sherman@state.co.us](mailto:steve.sherman@state.co.us) .



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## **I-25 Central Study – DRCOG**

**9/23/2019**

**Steve Sherman, CDOT PM**





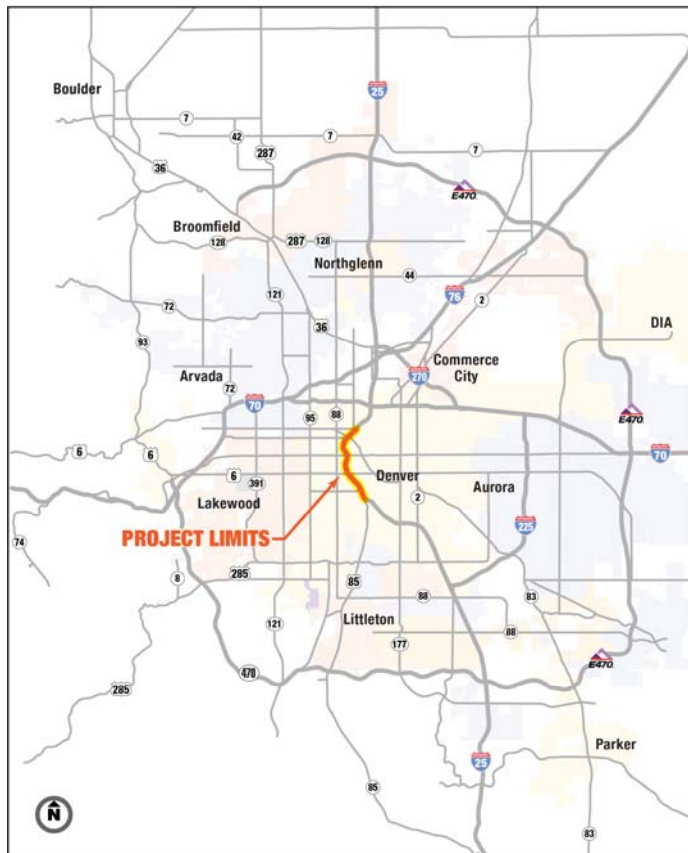
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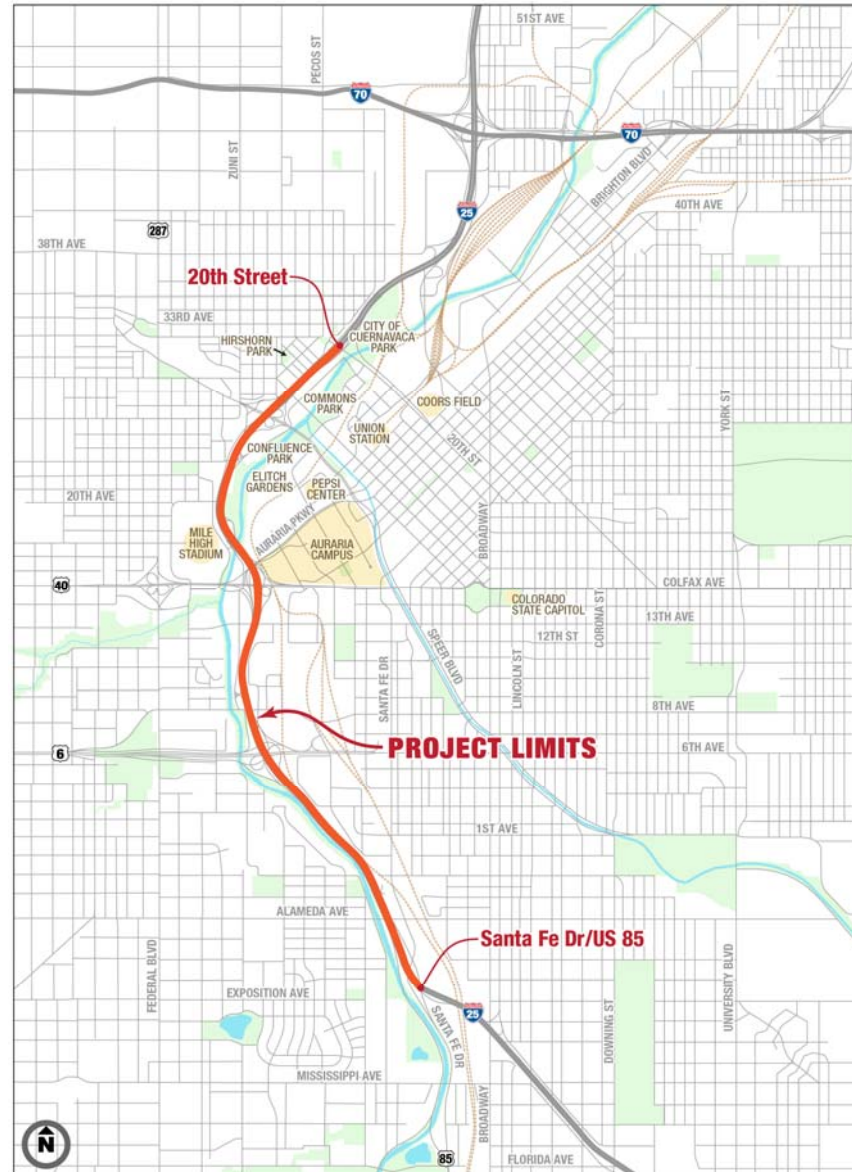
## Presentation Content

- Overview
- Purpose and Need
- Schedule
- Stakeholder Involvement
- Concept analysis and screening
- Alternative packages and traffic modeling
- Land Use, Transit, and CAV analysis
- Southern 1/3rd concepts and Burnham Yard (time permitting)
- Next Steps



### Need for Study:

- 225,000 Vehicles per day
- 1,000 crashes per year
- Deteriorating infrastructure
- 1964: last lane additions





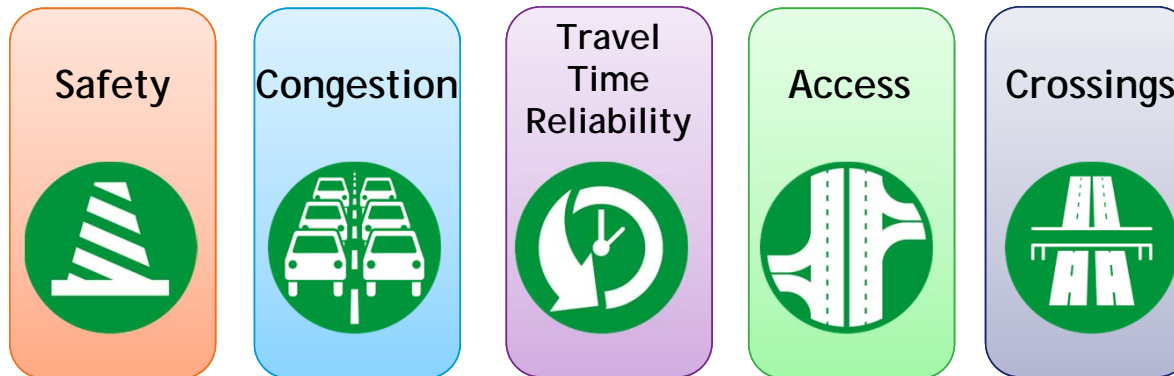
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## Study Purpose and Need

The purpose of the recommended transportation improvements in the I-25 Central Corridor between approximately Santa Fe Drive and 20th Street is to reduce congestion and improve safety and travel-time reliability for the movement of people and goods. The improvements also will consider access to and from I-25 as well as connectivity across I-25 for bicycles, pedestrians, transit, and local traffic.





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## Study and Analysis Timeline



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## Stakeholder Involvement

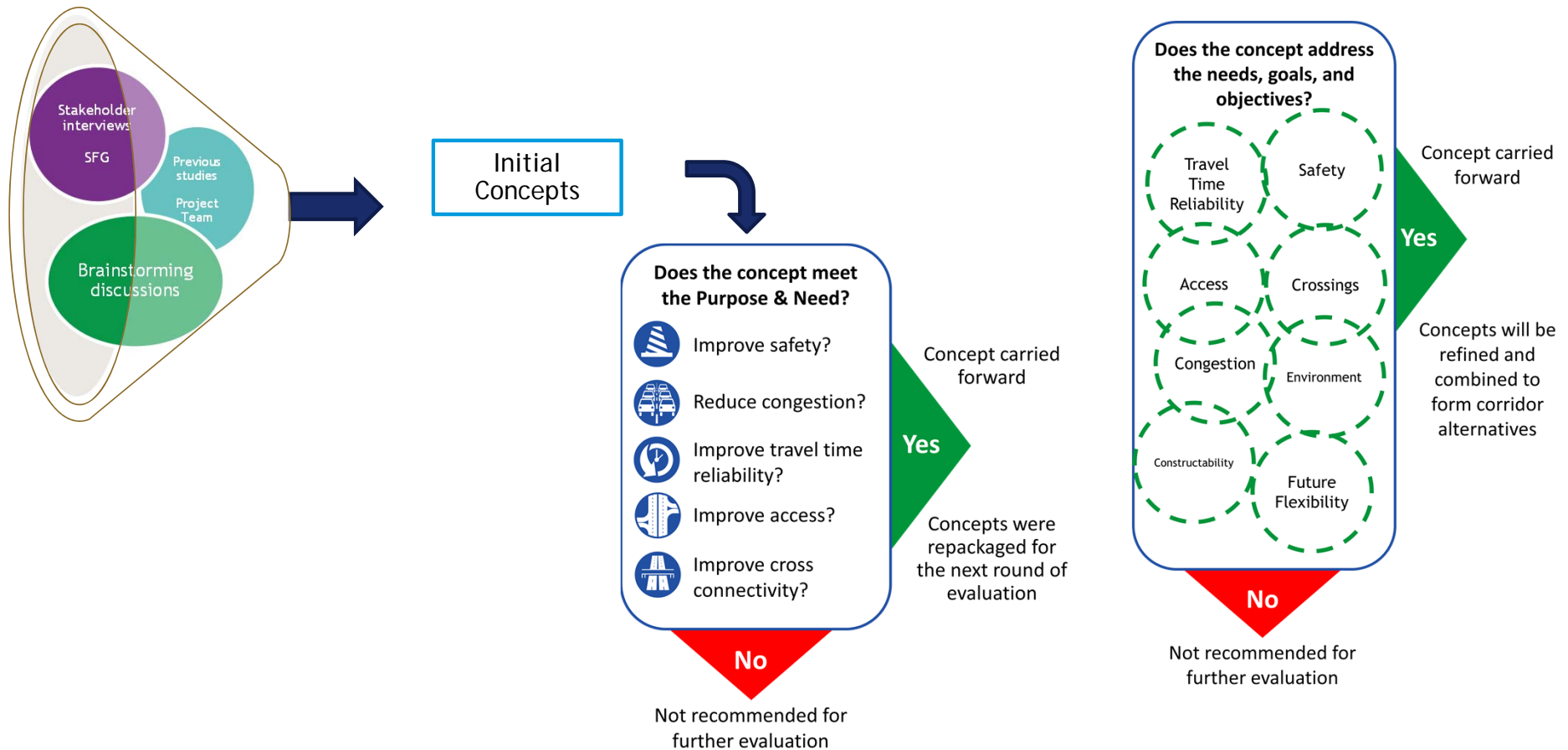
- Extensive stakeholder interview and involvement process
- Executive Oversight Committee
  - City and County of Denver
  - DRCOG
  - FHWA
- Technical Advisory Committee (TAC)
  - RTD
  - Colorado Motor Carrier Association
- Stakeholder Focus Group
  - 50 Members of diverse stakeholders
  - Large group meetings and individual interviews
- Over 1,400 responses to online survey
  - 50% within Denver

### Stakeholders Involved:

- FHWA
- City and County of Denver
- DRCOG
- RTD
- Neighborhood Organizations
- CMCA
- Local Businesses
- WalkDenver and other advocacy groups



## Evaluation Process





**Alternative 1: Bring the Corridor to Standard**

Bring the Corridor to Standard  
(Including eliminating some access)

**Alternative 2: Reduce Conflicting Movements**

Bring the Corridor to Standard

Add Collector/Distributor Roads

Add Braided Ramps

**Alternative 3: Increase through capacity**

Bring the Corridor to Standard  
(Including eliminating some access)

Add Managed Lanes

**Alternative 4?: Additive or "best of the best"?**

Bring the Corridor to Standard

Add Collector/Distributor Roads

Add Braided Ramps

Add Managed Lanes

# Alternatives

*Evaluated in All Alternatives, Corridor-wide*

Operations and Demand Management

Congestion Pricing

New Transit Facilities

Bicycle and Pedestrian Cross-Connections

Access Evaluation

**Alameda to US-6 Segment Improvement Concepts**

Realign and Split the Corridor

Realign Adjacent to RTD

Construct a Multi-Level Highway

Burnham Yard Acquisition and CML Realignment

**Sensitivity analyses being performed include:**

- Land Use changes
- Full RTD Transit Vision improvements
- Connected and Autonomous Vehicles



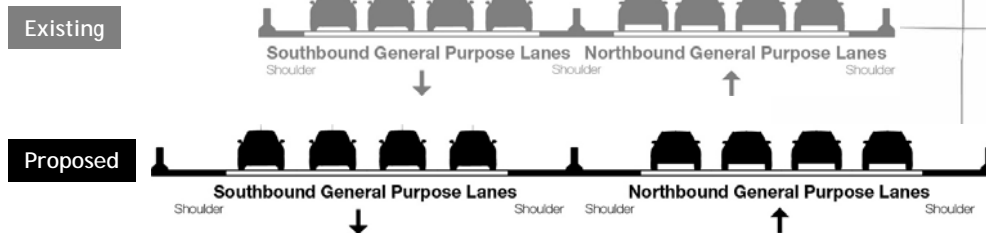
## I-25 Central PEL

DRAFT

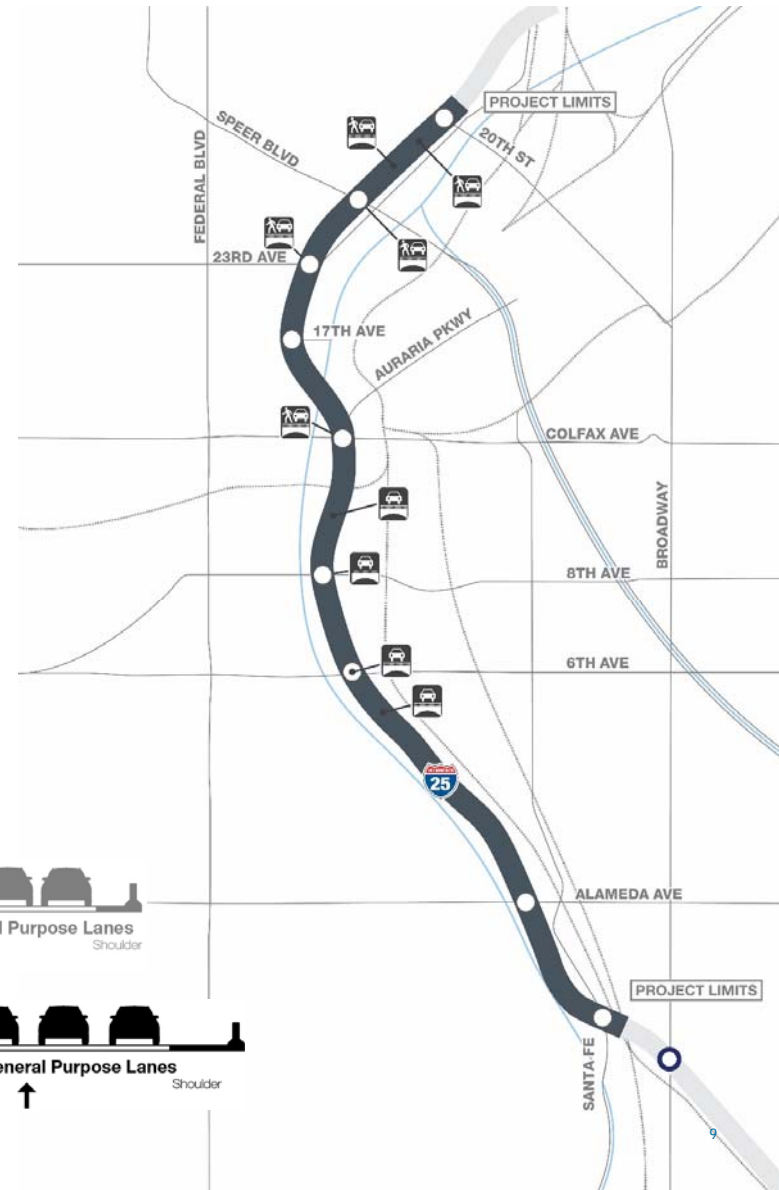
### 2 Bring the Corridor to Standard

The primary goal of this alternative is to provide the improvements necessary to bring the I-25 Central corridor to current engineering design standards for lane widths, curves and merge distances. The graphic indicates areas that would require only minor improvements in yellow and areas that would require major improvements in red. Adding additional width to the highway will also result in the need to replace some bridges along the corridor which are indicated by the bridge icons.

- REPLACE MAINLINE BRIDGE
- REPLACE LOCAL BRIDGE
- CONCEPTUAL GENERAL PURPOSE ACCESS
- NO ACTION IMPROVEMENTS



DRAFT: For Internal Discussion





9

## Add Collector/Distributor Roads

The primary goal of the Collector/Distributor Roads alternative is to add a system of roads adjacent to the I-25 Central corridor allowing for better management of access. The collector/distributor roads would be parallel to the northbound and southbound lanes of I-25 between Santa Fe Drive/US 85 and 20<sup>th</sup> Street. The collector/distributor roads would allow maximum access to/from the local street network; while focusing access to/from I-25 at select locations.

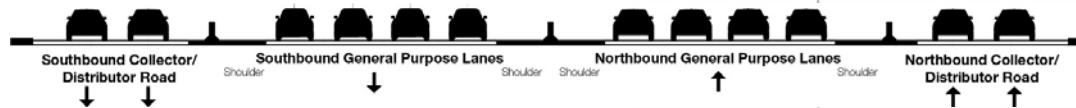


- REPLACE MAINLINE BRIDGE
- REPLACE LOCAL BRIDGE
- GENERAL PURPOSE LANES WITH FRONTAGE ROAD
- GENERAL PURPOSE LANES WITH CD ROAD
- 1 NORTHBOUND: I-25 RAMP TO 6TH OVER SANTA FE AND ALAMEDA ON TO I-25 NB
- CONCEPTUAL GENERAL PURPOSE ACCESS
- NO ACTION IMPROVEMENTS

Existing

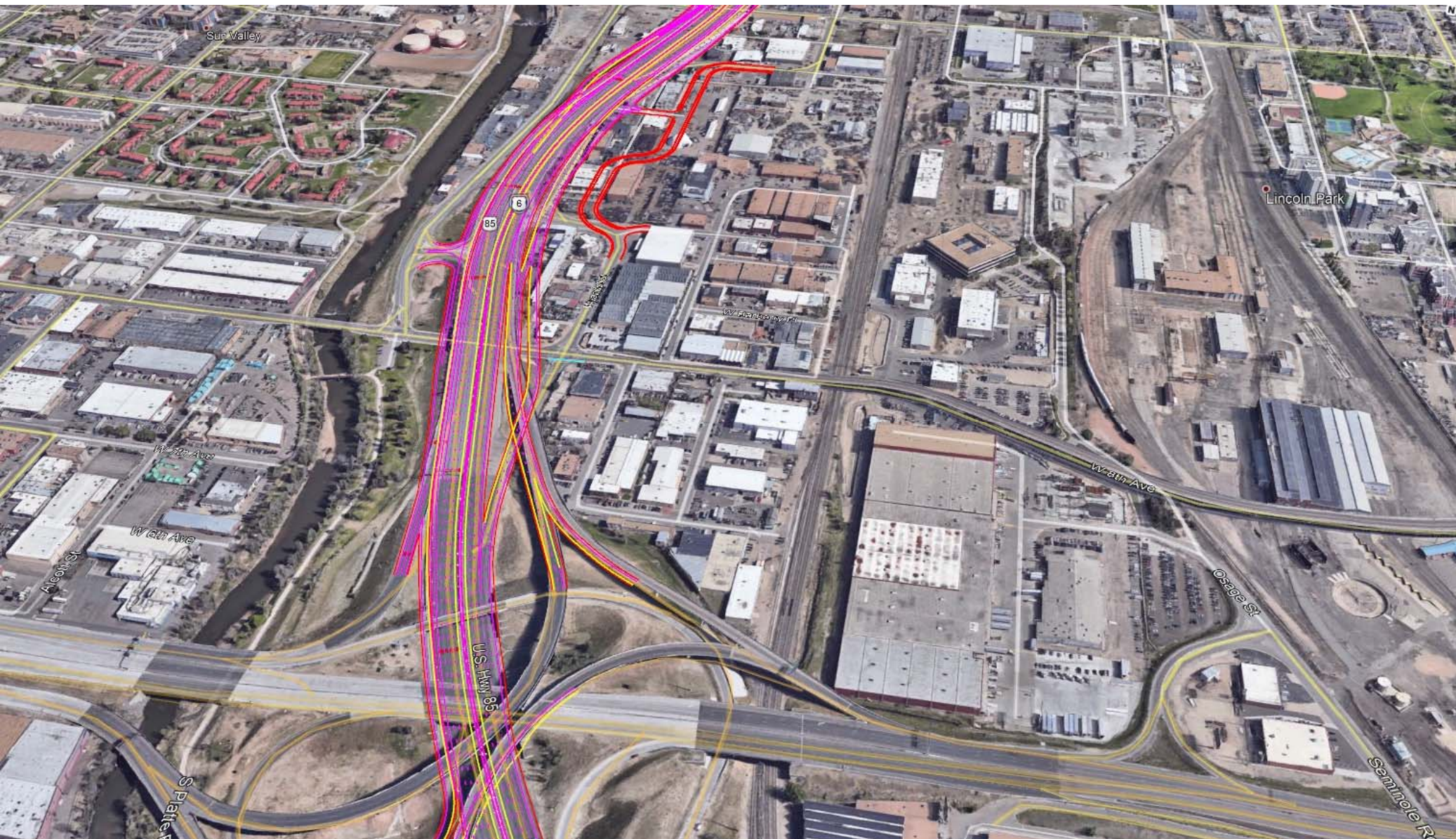


Proposed



DRAFT: For Internal Discussion

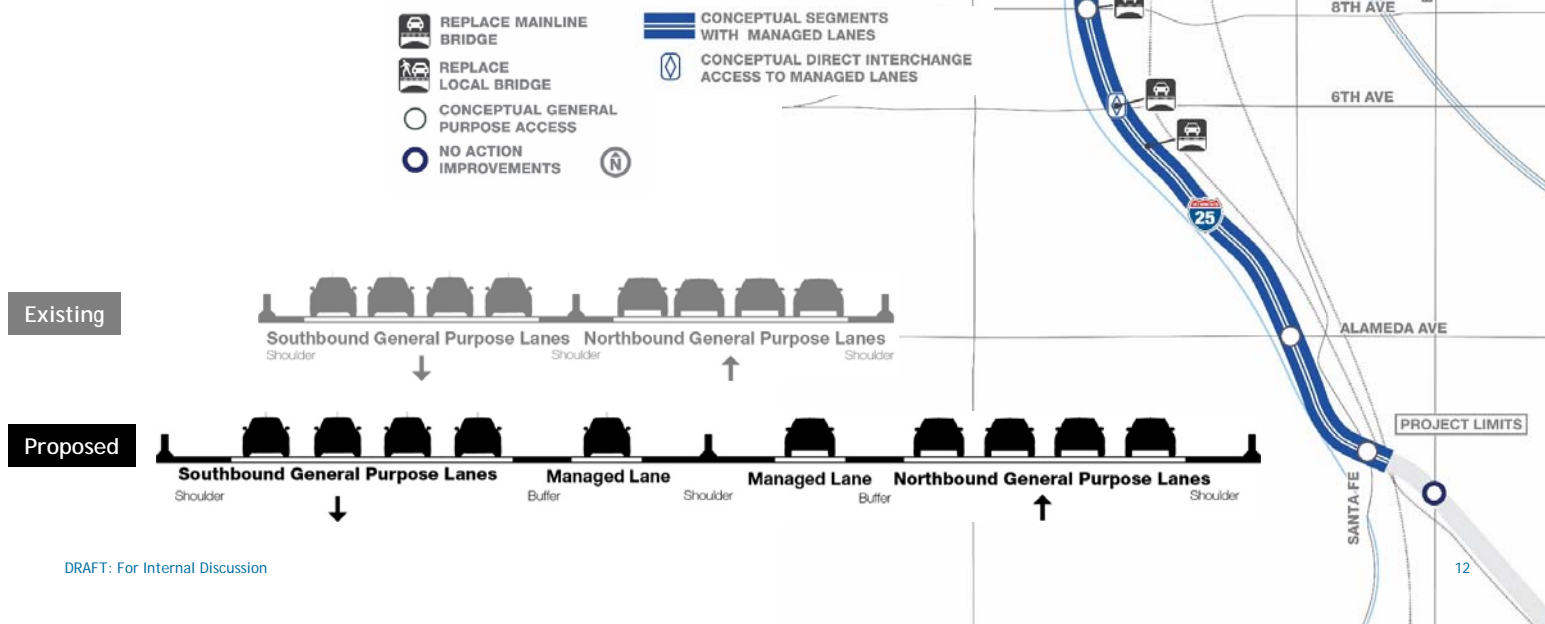






## 7 Add Managed Lanes

The primary goal of this alternative is to add managed lanes to I-25 in each direction, extending from Santa Fe Drive/US 85 to 20<sup>th</sup> Street. The purpose of these managed lanes would be to separate through traffic from traffic entering and/or exiting the highway. These managed lanes could accommodate transit (buses). Vehicles using the managed lanes could be free or tolled. This alternative would require large amounts of right of way and would require a full reconstruction of all structures along the corridor.





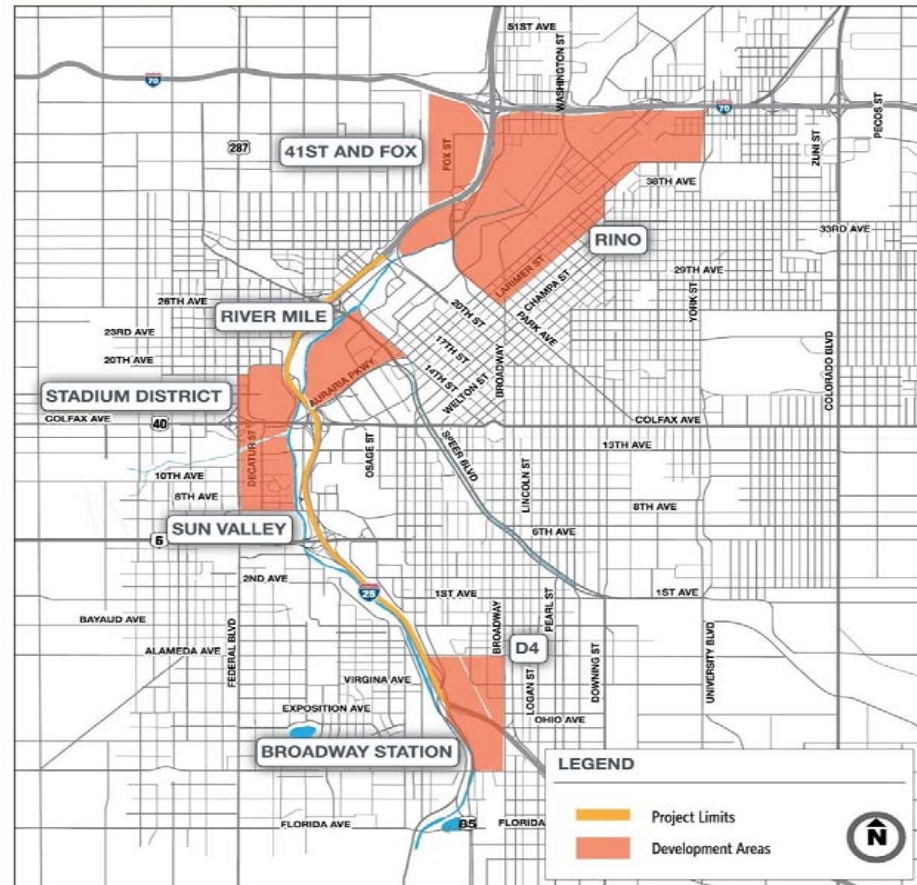
## Land Use Changes

CCD estimates include nearly 27,900 households and 117,100 jobs within the seven development areas, an increase of 90% (approximately 13,200 households) and over 325% (approximately 89,600 jobs).

The I-25 Central Study will detail these assumptions and results in narrative, to speak to viability of alternatives and to illustrate to the City and County of Denver how access from I-25 may need to be improved/revisited. Data will be used in future project analysis.

Denver goal is to reduce SOV commuters to 50%

DEVELOPMENT AREAS





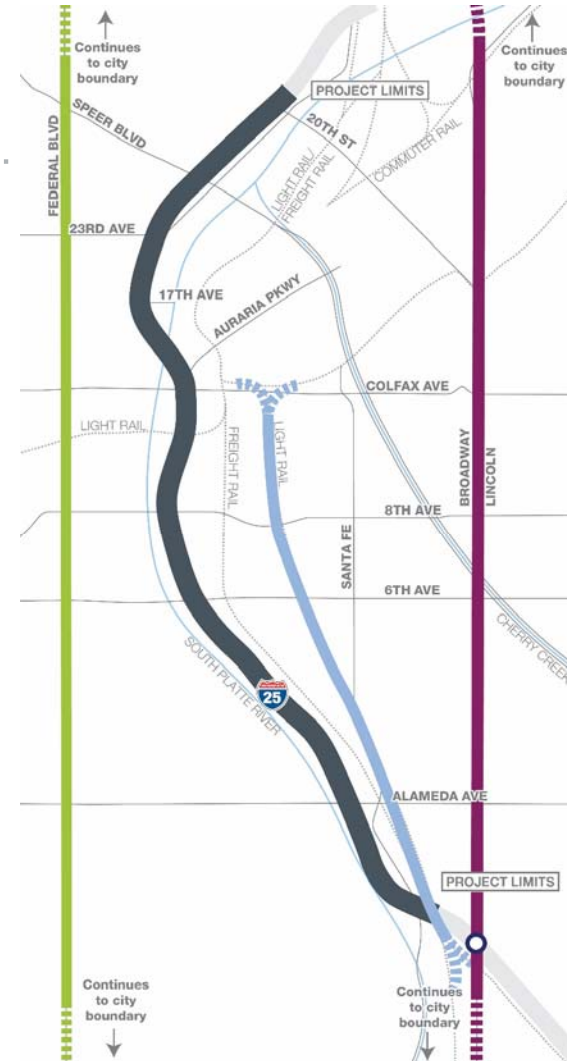
## Transit Review

Maximizing the RTD transit system would include:

- High capacity transit on Broadway/Lincoln Street
- High capacity transit on Federal Boulevard
- Two new LRT tracks for RTD between Broadway & I-25 and Central Platte Valley Junction at Colfax

While these improvements would attract many more riders, only 7,000 to 16,000 vehicle trips would be removed from I-25.

Perhaps Mobility Hubs at key locations would make it easier for travelers to shift modes. Key locations will be discussed in the final study document.





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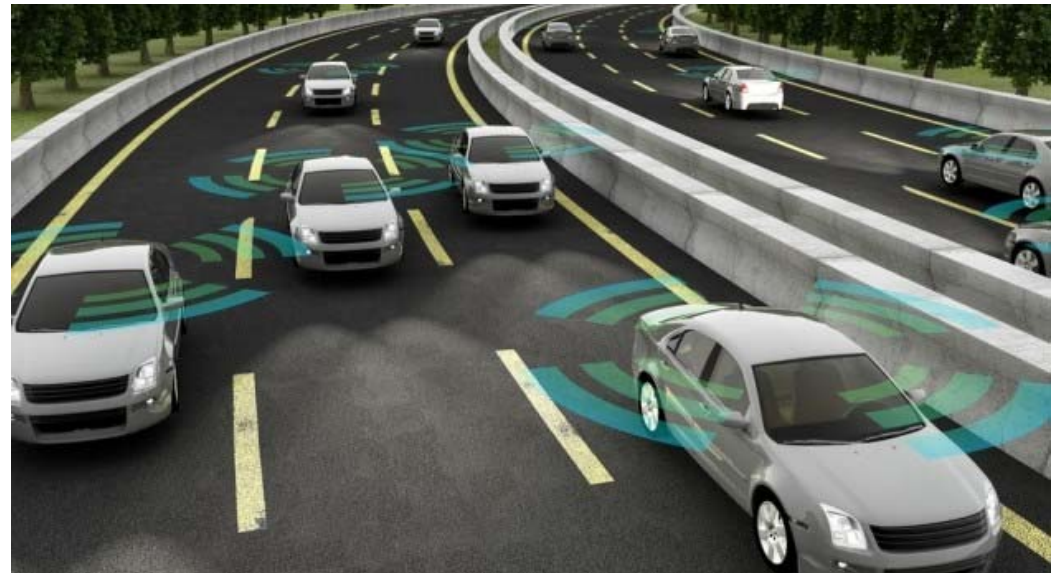
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## Connected and Autonomous Vehicles

HDR has been involved in original RoadX initiative to provide consistency regarding assumptions and impacts of connected and autonomous vehicles (CAV) in studies, led by Erik Sabina.

Assuming car-following assumptions (.5 seconds) and a range of adoption rates(25% and 75%), a VISSIM model will be run for the 2040 no action network and managed lane concepts.

This will be the **first known study** to model the effect of CAVs





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## Anticipated Steps Forward

- Iterative evaluation of alternatives in traffic and safety models to gain understanding of **relative performance** in 2040. Considering relative impacts, determine overall value (cost/benefit) for alternative elements
- Communicate conclusions to stakeholders
- Complete the PEL and implementation Plan
- Pursue of **Burnham Yard** option
- Construction of Valley Highway Phase 2 (Alameda over the S. Platte
- Initiation of the I25: 23<sup>rd</sup> and Speer Interchange project

Comparative data acquired for each alternative:

- Safety
- Congestion
- Travel-time
- Access
- Cost
- Impact

*The Study will conclude with an overall value ranking of alternatives and a logical approach to implementation phases.*



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## Conclusion



**ATTACHE**

## ATTACHMENT E

To: Chair and Members of the Transportation Advisory Committee

From: Todd Cottrell, Senior Planner, Short Range Transportation Planning  
303-480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Informational	7

### SUBJECT

Update on the post 2020-2023 Transportation Improvement Program (TIP) assessment process.

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

Every four years after a TIP is adopted by the Board (a cycle when a TIP Policy document is adopted and call(s) for projects are issued), DRCOG staff evaluates the completed cycle to collect comments on the process. In general, topics typically included policy development and adoption, project eligibility, evaluation criteria, selection process, as well as any other technical, policy, or procedural issue anyone wants to discuss.

Since the 2020-2023 TIP process introduced a new Dual Model Process, an expanded review process will be undertaken. The process includes:

- Survey of elected and staff participants,
- Attending technical committees and Forums to gather input and comment,
- One-on-one stakeholder interviews to gather additional details, as necessary, and
- Developing a white paper on the outcomes.

To assist in the effort, DRCOG is working with Kiernan Maletsky, a CU Denver School of Public Affairs student. Mr. Maletsky requested to work in partnership with DRCOG to complete his capstone project.

The process is expected to begin in October with the release of the survey.

### PREVIOUS DISCUSSIONS/ACTIONS

N/A

### PROPOSED MOTION

N/A

### ATTACHMENTS

N/A

### ADDITIONAL INFORMATION

If you need additional information, please contact Todd Cottrell, Senior Planner, Short Range Transportation Planning at 303-480-6737 or [tcottrell@drcog.org](mailto:tcottrell@drcog.org).

**ATTACH F**

## ATTACHMENT F

To: Chair and Members of the Transportation Advisory Committee

From: Jacob Riger, Manager, Long Range Transportation Planning  
303-480-6751 or [jriger@drcog.org](mailto:jriger@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Informational	8

### SUBJECT

Update on public and stakeholder engagement and upcoming activities for the 2050 Metro Vision Regional Transportation Plan (2050 MVRTP).

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

As noted at the June 2019 TAC briefing on the 2050 MVRTP, DRCOG staff has been engaged in several initial public and stakeholder outreach efforts, including:

- joint county forum stakeholder outreach with CDOT, RTD, and the SW Chief & Front Range Passenger Rail Commission
- attendance at multiple festivals, fairs, and other community events across the region this summer
- participation in CDOT's metro-area telephone town halls
- launching an [online engagement survey](#) and 2050 MVRTP [project webpage](#)

Additional initial engagement efforts will include launching a short project video, engaging with youth commissions across the region, forming an equity/civic workgroup, and other efforts. All these initial efforts are intended to inform/educate the public and stakeholders about the 2050 MVRTP planning process, identify issues, set the vision, and evaluate priorities. These efforts are being guided by the draft 2050 MVRTP Public Engagement Strategy (Attachment 1), which is based on DRCOG's [public engagement plan](#).

### Upcoming 2050 MVRTP Planning Activities

Of the several activities DRCOG staff will be working on for the 2050 MVRTP over the next several months, two are especially important: scenario planning and developing the RTP financial plan.

#### Scenario Planning

DRCOG is currently completing 2050 base land use forecasts as the foundation for being able to conduct robust scenario planning analysis to assist in developing the 2050 MVRTP. This topic will be the subject of the October TAC meeting.

#### Financial Plan

The 2050 MVRTP financial plan will ultimately identify all revenues, expenditures, and allocations associated with the region's multimodal transportation system through

2050 – major projects, project categories, services, and programs. The financial plan will include all transportation revenues anticipated to be available through 2050 from federal, state, regional, local, private, and other sources. Further, per federal requirements, the financial plan must be fiscally constrained – meaning it must identify the portion of those transportation investments that can be made based on reasonably anticipated revenues through 2050. DRCOG staff has been working on components of the financial plan, with several more to come.

Staff will provide an overview of these 2050 MVRTP topics at the September TAC meeting.

#### PREVIOUS DISCUSSIONS/ACTIONS

TAC – [March 25, 2019](#)  
[June 24, 2019](#)

#### PROPOSED MOTION

N/A

#### ATTACHMENTS

1. Draft 2050 MVRTP Public Engagement Strategy
2. Staff presentation

#### ADDITIONAL INFORMATION

If you need additional information, please contact Jacob Riger, Manager, Long Range Transportation Planning, at 303-480-6751 or [jriger@drcog.org](mailto:jriger@drcog.org)

# 2050 Metro Vision Regional Transportation Plan

## PUBLIC ENGAGEMENT STRATEGY – DRAFT

*Project Manager: Jacob Riger*

### Goal

The goal of the 2050 Metro Vision Regional Transportation Plan is to update our plan to a new horizon year, 2050, and define investment priorities in the region's multimodal transportation system. The MV RTP will be a comprehensive vision for improving how we get around that reflects the input of the public and our stakeholders. Updated every four years, the plan will explore transportation infrastructure and service needs based on population and employment projections. It will provide information on how federal, state, regional, local, and other funds will be spent on transportation modes, projects, and services. In addition, it will identify major roadway and rapid transit capacity projects.

### Purpose of Engagement

Public and stakeholder engagement is vital to this plan. The plan should be a collective vision that represents the input of the public and our stakeholders and partners. Over the two-year process of developing the plan, engagement will be divided into four distinct phases:

- Phase 1: Visioning and education
- Phase 2: Investment priorities and scenario options
- Phase 3: Plan development
- Phase 4: Draft plan review

### PUBLIC ENGAGEMENT

The phases of engagement will serve different purposes and will build upon each other. In the **first phase**, engagement will help us understand the priorities of the general public related to transportation, which will guide all future work on the plan. For example, topics that emerge as high priorities in this initial phase of engagement will inform the scenarios that are tested in phase two. In the first phase, we will also ask the public to assess how the current transportation system is doing and share what their vision is for the future of transportation.

The scenarios tested in **phase two** will test various strategies to achieve the vision that aligns with the public's priorities, as well as responds to the guiding policies and performance measures adopted in the Metro Vision plan. Engagement in phase two will inform our work immensely, as we will learn which choices and tradeoffs within the various scenarios people are willing to make, and which outcomes are most important. Engagement in this phase will also tell us which scenarios (or aspects of scenarios) people view as aligning best with their vision and priorities.

The results and feedback from scenario testing will help reveal where we should prioritize investment of transportation dollars to both specific projects and project funding categories. This involvement will guide the technical plan development that comprises most of **phase three**. During this phase, the primary focus will be on stakeholder engagement. With our stakeholders, we will determine which projects reflect public priorities and which are the best set of major capacity projects and other financial investments to implement Metro Vision.

In the **fourth phase**, the public will review the draft plan and we will learn whether the plan has accurately captured their comments, vision, and priorities. This phase will reveal whether any revisions need to be made to the plan prior to adoption to ensure consistency with the input obtained throughout the process. It should be noted that changes to specific projects will likely be limited, as that would ultimately require re-running the transportation and air quality models, which would not allow the plan to be completed and approved by its June 2021 federal deadline.

## STAKEHOLDER ENGAGEMENT

In addition to general public engagement, stakeholder engagement will also be integral to this plan. Stakeholders will similarly play an important role in providing their vision and priorities in **phase one**, as well as technical analysis of scenarios in **phase two**. As noted above, the plan development in **phase three** will be largely led by stakeholders, taking into account the earlier guidance from the public. Our stakeholders, and particularly our member governments, will help to ensure that the plan will support Metro Vision. They will provide guidance on how investment decisions should relate to Metro Vision targets and identify which targets are most important to address. In addition, stakeholders will help ensure that the plan responds to public feedback and that projects in the plan reflect the vision and priorities of the public. During **phase four**, stakeholders will complete a final review of the plan.

## Schedule

The following graphic shows the phases of engagement conceptually:



More specifically, below is the anticipated schedule by quarter:

	2019			2020				2021	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1: Visioning & education									
2: Investment priorities and scenario options									
3: Plan development									
4: Draft plan review & adoption									*

*\*Target Committee & Board of Directors final adoption dates:*

TAC: 3/29/21 | RTC: 4/20/21 | Board: 4/21/21

After each phase of engagement is completed, a summary of activities will be completed by the engagement specialist, will be posted to the website, and will be shared with the DRCOG Board as an informational update throughout the process.

## **Tools and Techniques**

The following engagement tools and techniques will be implemented throughout the plan process for the 2050 MVRTP.

### **SURVEY**

*Phase One:* We will develop a 5-minute online survey with questions that will ask the public how they think the transportation system is doing now, how success is measured in a transportation system, funding and policy priorities. This survey will be promoted through in-person pop-up events and through owned and earned media (eblasts, web, and social media promotion).

*Phase Two:* During phase two, a user-friendly, gamified survey will be developed that will allow the public to review different scenarios and provide input on preferred features of each scenario as well as determine which tradeoffs they are willing to make. We will explore whether there is funding available to support offering incentives to get people to take the survey and whether we would like to work with a research company to ensure that the survey has a statistically valid sample of respondents.

*Phase Four:* A brief survey may be used in phase four to efficiently obtain feedback from the public and stakeholders on the draft plan. This survey will go along with an executive summary that is created to allow for quicker review, if some members of the public do not have the time to review the entire draft 2050 MVRTP.

### **IN-PERSON POP-UP EVENTS**

*Phase One:* During the summer of 2019, we will attend fairs and festivals throughout the region to introduce people to DRCOG and the plan, and to start the conversation about transportation in the region. We will use quick, simple activities at our booth to understand the priorities of the public, inform them about the plan, encourage them to take the longer survey, and distribute information. This will allow us to meet people where they already are, rather than asking them to come to meetings hosted by DRCOG. We will partner with CDOT, which is undertaking a similar statewide effort in the summer of 2019, to share booths where possible. Opportunities to partner with RTD as they embark on their Reimagine RTD process will also be explored.

*Later Phases:* We will continue conversations about the plan as opportunities arise for in-person pop-up events at a more ad-hoc basis during phases two and three. Phase three will focus primarily on stakeholder input and will likely not include many pop-up events. We will target additional events during phase four to further educate about the draft plan and will encourage people to review and comment on the draft.

### **CIVIC ADVISORY GROUP**

We will convene a new civic advisory group to advise the Board, committees, and staff on the perspectives of Environmental Justice and other under-represented communities during the 2050 MVRTP planning process. This group will allow for greater participation by members of populations traditionally under-represented in regional decision-making processes due to demographic,

economic, or geographic circumstances. The group will include representatives from organizations that advocate for the needs of various vulnerable populations, including low-income and minority communities, older adults, veterans, and individuals with disabilities. The group will provide a venue for meaningful dialogue and input on plan issues and products, as well as assist with relationship-building as we further advance the goals in our public engagement plan to engage under-represented groups. This group may also review other transportation-related plans DRCOG is developing, such as the Regional Vision Zero action plan and the Regional Multimodal Freight Plan.

### **YOUTH ADVISORY PANEL**

Considering the primary transportation system users in 2050, it is important to engage today's youth to understand their priorities and vision. Working with staff in our member governments, we will convene a panel of teenagers who already serve on their local government's youth commission. Eighteen of our member governments have youth commissions and the majority have expressed initial interest in participating in a regional advisory panel for this plan. We anticipate that this panel would meet approximately 6 times over the course of the plan development. This panel will provide their input at various phases of the plan, including the phase one visioning work, scenario analysis, and draft review.

In addition to the youth advisory panel, we will seek out additional creative opportunities throughout the plan process to work with younger children and educate them about regional transportation planning and learn about how they view the transportation of their future. For example, in September 2019 we will work with elementary school students in Lakewood completing a "Lego Challenge" that tackles a transportation problem through Lego design.

### **VIDEO**

We will develop a video similar to other MPO regional transportation plan introductory videos created around the country. The video will be approximately two minutes in length. It will be featured on the project website and will be promoted through DRCOG social media channels. The video will also be shown at stakeholder meetings to introduce the project. The video will be tailored to an audience who may not know anything about regional transportation planning and will provide a brief high-level overview of what the plan is and how it impacts people's lives. The video will either be created in-house by the Communications and Marketing team or we will contract externally with a videography firm to create the video. Ideally, the video would be created while we are in phase one of the project.

Examples of videos:

- [Houston-Galveston Area Council](#)
- [Southeast Michigan Council of Governments](#)

### **ONLINE ENGAGEMENT PLATFORM**

We plan to secure a contract for an online engagement platform by the end of 2019 in order to provide online tools to engage the public. The platform will allow us to have more interactive surveys and polls throughout the plan process, as well as a central online location for schedules, videos, and links. This platform will also support other projects in the organization, but the 2050 MVRTP will be a primary use during 2020.

*Phase Two:* The online engagement platform will be particularly useful during phase two of engagement, as we can leverage those tools to gain robust feedback on the various scenarios and ask what tradeoffs people might be willing to make to reach other goals.

*Phase Three:* The platform may assist with stakeholder engagement during phase three as a repository for materials. We can also use some of the tools provided through the platform to obtain feedback from our stakeholders as the plan is developed.

*Phase Four:* The platform will be very useful during phase four as it is used to reach those who already engaged in previous phases of the plan and will allow the public to easily review the plan and provide feedback through the tools available on the platform.

### **COMMUNITY-BASED ORGANIZATIONS**

Throughout all phases of the plan process, we will attend targeted meetings with organizations representing transportation disadvantaged populations or under-represented communities. Rather than asking people to come to us, we will reach out to organizations and ask to join their meetings to give short presentations, solicit feedback through our surveys or simply to have a conversation. Potentially this could also include contracting with organizations to undertake outreach activities on our behalf.

We want to make sure we are reaching those we are not hearing from through our other engagement efforts. We will need to tailor this strategy based on the responses we get to the initial survey and constantly adapt throughout the process to better reach a wider audience. This will help us develop relationships with new organizations and people in the region. Some initial ideas for organizations to reach out to include: Mile High Connects, United for a New Economy, Servicios de la Raza, 9 to 5, and Homeless Out Loud, but may include many others.

### **OPEN HOUSES**

When the draft plan is complete, we will host five public open houses. These will take place in the different general sectors of the region: central, north, south, east, and west. We will secure convenient and accessible locations. We will provide food and childcare, as well as interpretation as needed at these events. Invitations will be sent to a broad range of public who have engaged with DRCOG in the past and we will also try to leverage relationships with community-based organizations to spread the word about the open houses.

### **TELEPHONE TOWN HALLS**

We will participate as a panelist in telephone town halls for the Denver region with CDOT during phase one of engagement.

### **MEDIA RELEASES**

Media releases will be submitted when the plan draft is out for comment and upon adoption. With the assistance of the public relations specialist, we will submit releases to niche outlets serving under-represented communities. Translated news releases will be submitted to non-English media outlets (some Spanish-speaking examples include La Voz, El Semanario, Viva Colorado, and Univision Colorado).

## **WEBSITE**

The project website will be developed by DRCOG and will be the main source of information to stakeholders, member governments, and the public until the online engagement platform is finalized. The website will include schedules, events, information, promotional videos and map links. Additional content for the webpage such as meeting materials, planning documents, and outreach materials will also be included.

## **SOCIAL MEDIA**

DRCOG will promote the plan on our social media accounts throughout the process. Visual content will be created for posts to increase interactions. Paid social media advertising will be purchased either separately or through the online engagement platform in order to boost participation, particularly in phase two of engagement, to ensure that we are hearing from a diverse range of voices around the region throughout the planning process.

## **WAY TO GO PARTNERSHIPS – GOTOBER AND BIKE TO WORK DAY**

There may be opportunities to partner with Way to Go during GoTober and Bike to Work Day to promote available surveys during phase one (GoTober 2019) and phase two (Bike to Work Day 2020). For example, surveys could be sent out with communication about GoTober, and we could create an activity for the Way to Go booth at Bike to Work Day to receive high-level feedback on preferred scenarios.

## **TRANSPORTATION PHOTO CONTEST**

Phase three is largely stakeholder-focused, but we do not want to lose momentum or the public's attention during this phase, as it is particularly important that they review the draft plan during phase four. To maintain interest and momentum, we will develop a transportation-themed photo contest through social media during phase three (late 2020). This would need to be coordinated with, or could potentially coincide with, GoTober 2020 promotion. These photos could also be used for the design of the plan document.

## **REGIONAL PARTNER PRESENTATIONS**

As needed or requested, DRCOG staff will give presentations about the 2050 MVRTP process to regional partners. These presentations will help spread the word to regional partners about the effort.

## **COUNTY TRANSPORTATION FORUMS**

County transportation forums (also called “subregional forums”) were formed in each county as the committee responsible for coordinating a project prioritization process to recommend projects to the DRCOG Board for the 2020-2023 Transportation Improvement Program. These forums include each participating local government within a county, CDOT, RTD, and other invited stakeholders. These forums will serve as stakeholder sounding boards throughout the plan process. During phase one of engagement, we will partner with CDOT and RTD to introduce each county transportation forum to the 2050 MVRTP and upcoming engagement opportunities. We will attend county transportation forum meetings to seek feedback on each later phase of the plan as well. In particular, the input of the forums will be vital during phase three as the plan is being developed and the forums can provide technical analysis and member government input.

## IMAGINE A GREAT REGION EVENT

DRCOG is partnering with the University of Colorado Denver on the Imagine a Great Region initiative. This effort fosters cross-sector, regional conversations on growth, advances knowledge through research, and disseminates findings about managing urban growth in deliberate, sustainable and equitable ways. The events are typically themed and an event in late 2019 will have a transportation focus. We will craft an engagement activity for attendees of that meeting either focused on phase one vision and priorities or phase two scenario planning, depending on the status of scenario planning at that time.

## BOARD OF DIRECTORS AND DRCOG COMMITTEE PROCESS

Prior to formal adoption processes, DRCOG staff will attend Transportation Advisory Committee, Regional Transportation Committee, and Board of Directors meetings occasionally to provide updates on the planning process. The Transportation Advisory Committee will serve as the Steering Committee and will be updated on the project every 1-2 months. It is anticipated that an engagement summary will be presented to the Board and committees after each phase is complete.

*Phase Four:* The plan will be posted for at least a 30-day public comment period prior to Board of Directors adoption. The plan will be presented to the Transportation Advisory Committee and Regional Transportation Committee prior to the Board of Directors meeting during the public comment period. A public hearing before the Board of Directors will be held at the end of the public comment period. The availability of the draft plan for review and comment will be announced through DRCOG social media, website, and e-blasts to interested parties. A project-specific interest list will be compiled throughout the plan's development and all participants of the planning process will be informed directly of the availability of the draft.

## Implementation Timeline

Below is an anticipated timeline of when the various tools and techniques may be implemented.

	2019			2020				2021	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
County Transportation Forums									
Website									
Social Media									
Survey									
In-Person Pop-Up Events									
Telephone Town Halls									
Youth Advisory Panel and Other Outreach									
Civic Advisory Group									
Video									
Community-Based Organizations									
Imagine a Great Region Event									
Regional Partner Presentations									
Way to Go Partnerships									
Online Engagement Platform									
Transportation Photo Contest									
Open Houses									
Media Releases									
Board of Directors and Committee Process									

## Evaluation Criteria

The following criteria from the public engagement plan informed the creation of this strategy document and the tools and techniques recommended for the 2050 MVRTP. These criteria will further guide engagement throughout the plan process. A general assessment of these criteria will be included in the summary after each phase of engagement.

### OBJECTIVE: PROVIDE MEANINGFUL OPPORTUNITIES TO PARTICIPATE

- How will you provide information to community organizations and invite their networks to participate?
- How will you invite people to share their perspectives before each decision-making milestone?
- How will you share input from people directly with decision-makers?
- How will you give people opportunities to shape alternatives?
- How will project information be available on DRCOG's website? How will you measure whether people are accessing or downloading the information?
- How will you identify who receives electronic communications about the project?
- How will people sign up for your project's interest list?
- How will you work with Communications and Marketing to create eblast and social media content that encourages recipients to follow links to information at DRCOG's website?
- How will you work with Communications and Marketing to create content that encourages recipients to open emails or surveys about your project?
- How will you work with Communications and Marketing to craft social media content to garner replies, mentions or comments?
- How will you encourage people to attend in-person opportunities (such as public hearings or open houses) to provide their perspectives?
- How will you determine whether venues for in-person participation are accessible? How will you select venues for in-person participation?
- How will you determine the various times at which in-person opportunities to participate will be held? Do they accommodate a range of people's other commitments (work, school, family)?
- How will you supplement in-person opportunities to participate with online opportunities to participate?
- How will you encourage people to comment on your project?
- How will you ensure that the comments you receive on the project represent a diversity of perspective?
- How will you engage people of various demographic groups?
- How will you ensure participants remain willing to provide their perspectives in the future? How will you measure such willingness?
- How will you modify or change the project based on public input?

### OBJECTIVE: INVOLVE UNDER-REPRESENTED COMMUNITIES

- How will you engage community organizations affiliated with low-income communities, communities of color, people who speak languages other than English, youth or people with disabilities?
- Will you facilitate translation of materials or meeting presentations into languages other than English?

- How will you track comments you receive in languages other than English?
- Will publicity for meetings and meeting materials include an Americans with Disabilities Act notice?
- How will you respond to requests to provide materials in alternative formats, such as Braille?
- How will you define accessibility? How will you select venues for public participation that are accessible and barrier free?

#### **OBJECTIVE: COMMUNICATE COMPLETE, ACCURATE, UNDERSTANDABLE AND TIMELY INFORMATION**

- Do federal regulations guide public engagement? How will you comply with all federal requirements?
- How will you test information, materials or surveys for clarity among people not involved in the project?
- How will you review (or invite review of) information for accuracy?
- Will any information be deemed a vital document? If so, will you translate it into other languages as guided by DRCOG's Limited English Proficiency plan?
- How will you make people aware of the availability of information through email, web or partner networks?
- How will you clearly advertise meetings, workshops, surveys and other opportunities to participate on DRCOG's website?
- How will you provide notice of meetings, workshops and other opportunities to participate? How far in advance are you providing notice?
- How will you invite community organizations to share opportunities to participate with their members?
- How will you invite people to indicate whether they believe their involvement will be considered or influence the project?
- How will you work with Communications and Marketing to email information about meetings, workshops, surveys and other opportunities to participate to relevant DRCOG lists?
- How will you work with Communications and Marketing to provide information and notice of opportunities to participate via social media?
- How will you work with DRCOG's public relations coordinator to provide information about the engagement process to the media?
- How will you make information about pending decisions available to the public at least one week in advance of any decision-making milestones?



# 2050 Metro Vision Regional Transportation Plan Update

Transportation Advisory Committee  
September 23, 2019

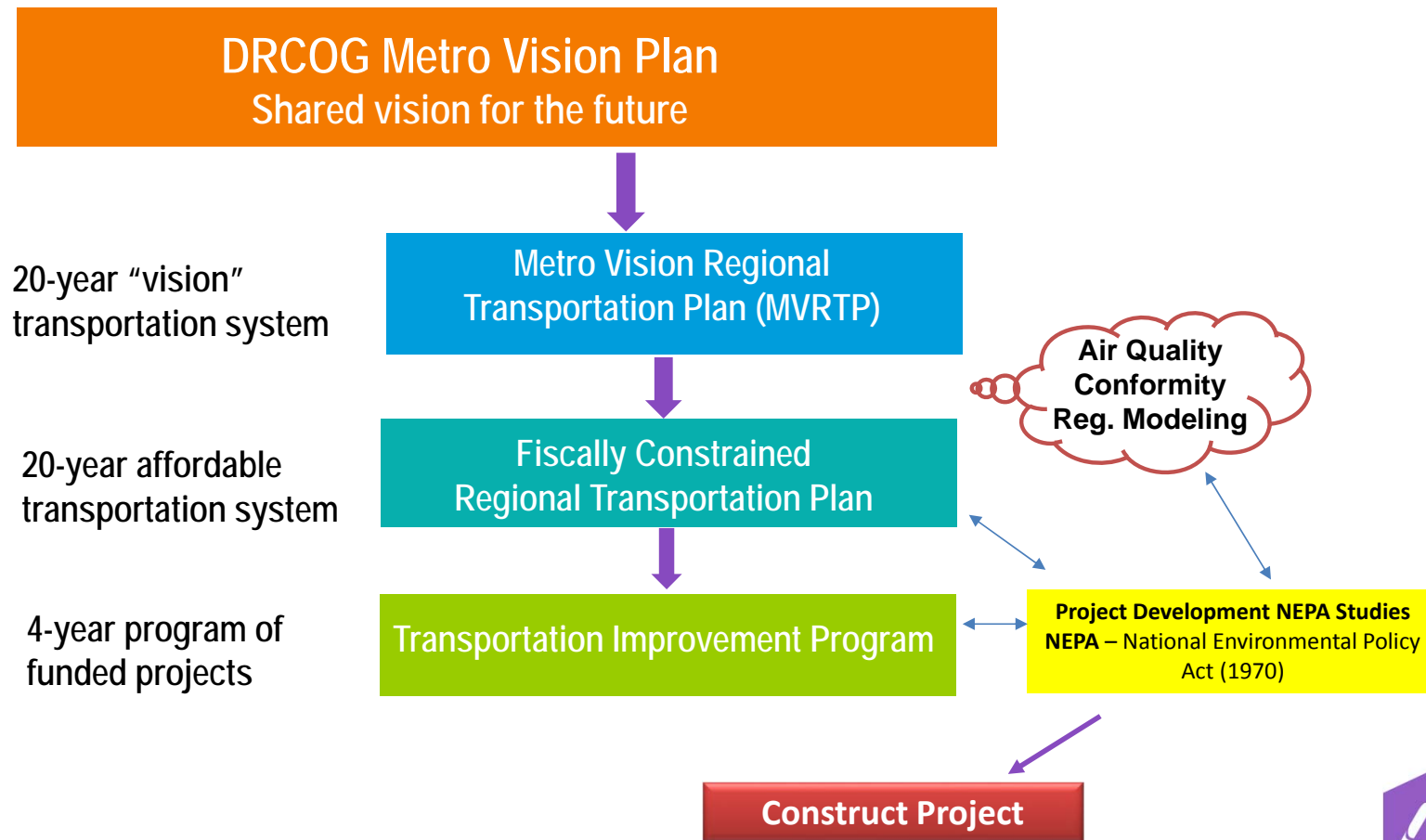
*Presented by:*

**Jacob Riger, AICP**

TAC – Sept. 23, 2019

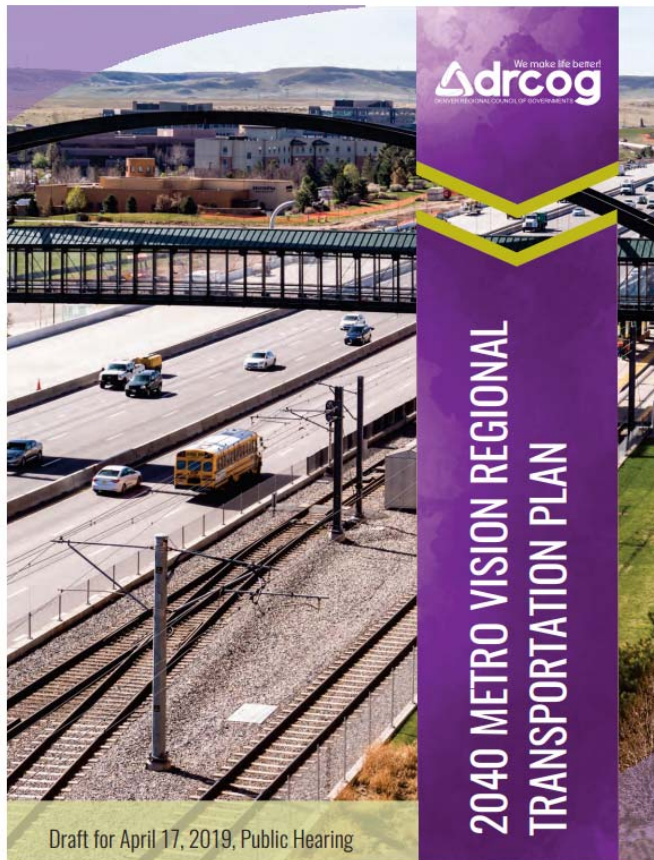


# Metro Vision Plan and MVRTP Overview





## MVRTP Overview



- Helps implement Metro Vision
- Meets federal requirements
- Presents region's vision for multimodal transportation system
- Identifies “fiscally constrained” (cost feasible) system & project investments
- Identifies major roadway capacity & rapid transit projects
- Is updated every four years and amended more frequently





## Today's 2050 MVRTP Topics

- Public/stakeholder outreach
  - 2050 MVRTP engagement strategy
  - Community & stakeholder engagement this summer
- Upcoming technical activities
  - Scenario planning (October TAC)
  - 2050 MVRTP financial plan overview



# PUBLIC/STAKEHOLDER OUTREACH



## 2050 MVRTP public engagement strategy



# Phase one: vision & priorities



Pop-up events



Online survey



Telephone town hall



County transportation forums



Youth outreach



Video development



## Pop-up events

- Six events
- Talked to over 500 people
- Activity:
  - Safety
  - Transit
  - Sidewalk and bike paths
  - Maintenance
  - New roads or lanes






## Online survey

- Over 300 responses in first week
- Open until Oct. 4
- [bit.ly/2050survey](https://bit.ly/2050survey)
- [bit.ly/MVRTPespanol](https://bit.ly/MVRTPespanol)



 **HELP US SHAPE THE METRO VISION REGIONAL TRANSPORTATION PLAN**

### 2050 Metro Vision Regional Transportation Plan Survey

1. How well do you think the regional transportation system is doing in each of the areas listed below?

Rate each of them on a scale of 1 to 5, with 1 being "not well at all" and 5 being "very well".

	1 Not Well at All	2	3	4	5 Very Well
Using the latest technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Locating transit service near attractions and services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting the regional economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintaining roads and bridges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanding public transit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanding roads and highways	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing incentives for using types of transportation other than driving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





## Telephone town hall

- Partnered with CDOT
- Held August 21-22 for Denver region
- Over 500 attendees
- Participant questions emphasized safety, mobility, and funding



Credit: Roger Sherman

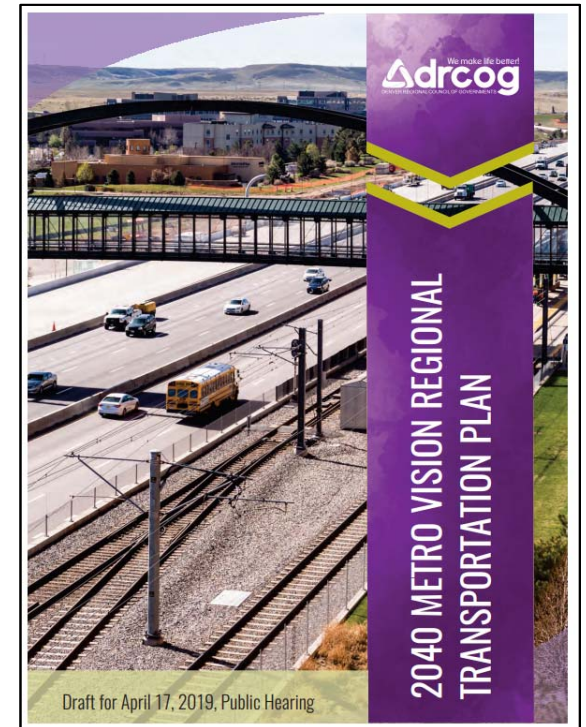




## County transportation forums



**SOUTHWEST CHIEF & FRONT RANGE  
PASSENGER RAIL COMMISSION**





## Upcoming – youth outreach

- Youth advisory panel – member governments
- Elementary school Lego challenge outreach





## Upcoming – video development

- 2 minute introductory video
- Produced by DRCOG Communications & Marketing department
- Anticipated completion: November





## Next steps – public & stakeholder engagement

- Complete video
- Convene youth advisory panel first meeting
- Imagine a Great Region event
- Survey analysis
- Phase two planning

The background of the slide is an abstract composition of vibrant, multi-colored light streaks in shades of blue, yellow, orange, and purple, radiating from a central point. A solid purple horizontal banner is positioned across the middle of the image, containing the title text.

# 2050 MVRTP FINANCIAL PLAN



## Fiscally Constrained Financial Plan Introduction

- Part of Fiscally Constrained RTP
- Cooperative effort of DRCOG, CDOT, RTD, local governments, and other agencies
- Three key steps:
  1. Estimate available revenues through 2050
  2. Define system category expenditure needs, costs, and revenue allocations
  3. Evaluate and prioritize regionally significant projects



## Fiscal Constraint (Balance Costs & Revenues)

### Metro Vision Needed System

Transit, Roads,  
O&M, TDM,  
Bicycle &  
Pedestrian, etc.

Unfunded  
"Vision"

Funded projects  
and categories

Reasonably  
expected  
revenues  
through  
2050





## Fiscal Constraint (Balance Costs & Revenues) – 2040 MVRTP

Table 5.1 2040 Fiscally Constrained RTP Costs and Revenues

	(millions)	
	Constant (FY 15\$)	Inflated (YOES)
Transportation System Costs (2016-2040)	\$106,550	\$141,890
Anticipated Transportation System Revenues (2016-2040)	\$106,550	\$141,890

Demonstrate fiscal constraint in:

- Constant year \$ (FY 15)
- Inflated \$ (year of expenditure)



## Revenue Estimates: Sources

- CDOT Program Distribution: most federal and state revenues
- RTD: financial plans and budgets
- Local Revenues: CDOT receipts & expenditure reports, local general fund revenues for transportation
- **State/Regional Revenues: potential ballot or other funding measure(s) assumption**
- Example (Table 5.2): [https://drcog.org/sites/default/files/resources/FINAL-2040MVRTP-0619.pdf#80=\[80number\]](https://drcog.org/sites/default/files/resources/FINAL-2040MVRTP-0619.pdf#80=[80number])



## Expenditures – Two Types:

### System Categories

- Not project specific – address broad areas of need
- Specific projects developed through TIP process
- Expenditures listed by category
- Examples: system preservation, local bus service, roadway operations, sidewalks, safety, many others

### Regionally Significant Projects (air quality)

- Major capacity projects (roadway, interchange, rapid transit)
- Listed individually in RTP by AQ staging period
- Expenditures listed by project

Example (Table 5.4): <https://drcog.org/sites/default/files/resources/FINAL-2040MVRTP-0619.pdf>



THANK YOU!

**ATTACH G**

## ATTACHMENT G

To: Chair and Members of the Transportation Advisory Committee

From: Steve Cook, Transportation Modeling and Operations Manager  
303-480-6740 or [scook@drcog.org](mailto:scook@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Informational	9

### SUBJECT

Update on DRCOG's Regional Transportation Operations and Technology TIP Set-Aside Program

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

The DRCOG Board adopted the *2020-2023 Transportation Improvement Program* (TIP) in August that included the Regional Transportation Operations & Technology (RTO&T) TIP set-aside program. \$5 million per year has been allocated to the RTO&T program, an increase of 19% over the previous TIP. The amount reflects the Board's commitment to advanced technologies that improve transportation operations and mobility services.

In January the TAC was provided an informational briefing about the program. As noted then and further defined here, the RTO&T Set-Aside Program contains the following components:

- RTO&T Improvement Program of projects (~\$3.5 million per year)
  - \$30+ million to CDOT, local governments, and RTD over the past 10 years for traffic signal systems, fiber communications system expansion, multimodal detection, monitoring cameras, and transportation management center infrastructure.
- DRCOG Regional Traffic Operations Program (~\$1.5 million per year)
  - Technical services (e.g. traffic signal system planning and design) and support for the project implementation.
  - In the past 10 years: timed and coordinated 2,000 signalized intersections, reducing fuel use, pollutants, and traveler delays significantly.

DRCOG staff also provides federal funded planning support through the Unified Planning Work Program:

- Staff support for RTO&T Set-Aside Program (i.e. maintenance of DRCOG Regional ITS Architecture)
- Facilitating of the Regional Transportation Operations Working Group
- Staff support for the Advanced Mobility Partnership (AMP)

Since January the following key activities have been conducted:

- 1) The Mobility Choice Blueprint (MCB) [document](#) was completed in February 2019. It is a partnership of DRCOG, CDOT, RTD, and the Denver Metro Chamber of

Commerce. It's mission is "to create a mobility vision for metro Denver driven by public and private sectors by developing key strategies to leverage our current assets using new technologies and provide an integrated system of the future for all."

- 2) To carry out regional collaboration efforts, the MCB defined a tactical action to establish a mobility technology advisory committee. Discussions over the past few months led to the recommended creation of an Advanced Mobility Partnership (AMP) made up of an AMP Executive Committee of designees from the four partner agencies and an AMP Working Group including technical and policy members and advisors. Procedures for the formation of the AMP recently started. One of the key efforts for the AMP is to provide policy advice for the preparation of an *RTO&T Strategic Plan* to guide the subsequent call for projects in 2020.
- 3) DRCOG hired a new transportation technology strategist to support the AMP and other efforts associated with new mobility technologies and services.
- 4) The RTO Working Group identified three regional coordination efforts to be the focus of the *RTO&T Strategic Plan* and 2020 call for projects:
  - Regional Coordination Operational Concepts:
    - **Data and information sharing** – Provide open access to transportation (and other) data for use by agency partners and third parties for both real-time operational response and planning purposes.
    - **Performance monitoring** – Deploy compatible and interoperable systems on priority corridors to provide signal operations performance measures that are monitored both locally and regionally.
    - **Situational awareness and coordination** – Data collected locally will be shared regionally to establish more thorough situational awareness of crashes and other incidents, thus better enabling cooperative and coordinated response.

DRCOG staff will provide an overview presentation (attached) and lead discussion at the meeting.

PREVIOUS DISCUSSIONS/ACTIONS
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[January 28, 2019](#) TAC

PROPOSED MOTION
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N/A

ATTACHMENTS
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1. Staff presentation

ADDITIONAL INFORMATION
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If you need additional information, please contact Steve Cook, Transportation Modeling and Operations Manager, at 303-480-6749 or [scook@drcog.org](mailto:scook@drcog.org); or Greg MacKinnon, Transportation Operations Program Manager, at 303 480-5633 or [gmackinnon@rdrcog.org](mailto:gmackinnon@rdrcog.org).



# Regional Transportation Operations & Technology TIP Set-Aside Program

*Presented by:*

**Steve Cook and  
Greg MacKinnon**

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TAC – September 23, 2019



# RTO&T Components

## RTO&T Set-Aside Program (TIP ID: 2016-004)

### RTO&T Improvement Program of Projects

\$3.5 million / year

CDOT, RTD, and Local Government Projects:  
*traffic signal systems; fiber expansion; cameras;  
communication devices; multimodal detection*

### DRCOG Traffic Operations Program

\$1.5 million / year

Support (staff and consultant) for Improvement projects

### DRCOG (UPWP) RTO&T Program Support

- Facilitate RTO Working Group
- Call for projects
- Project sponsor assistance
- ITS Architecture (fed. require)

### 2020 Call For Projects

### RTO&T Strategic Plan

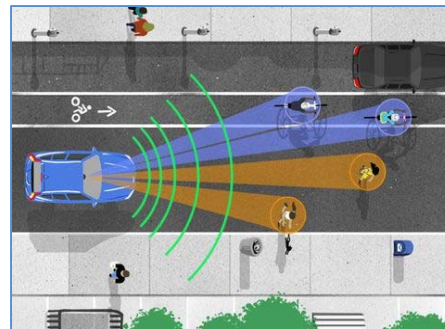
### Advanced Mobility Partnership

- AMP Executive Committee
- AMP Working Group
- RTO&T Policy Guidance
- Ad Hoc Work Groups



## Background: DRCOG operations programs

- Capital improvement projects – since 1993
  - Signal systems, fiber expansion, multimodal detection and communication devices, cameras, transportation management centers, etc.
- DRCOG Traffic Operations (Signal) Program – since 1989
  - Improve interjurisdictional timing and coordination
  - Stand-alone signal timing projects and capital project related
- RTO Working Group
  - Technical staff from local jurisdictions, RTD, CDOT, others





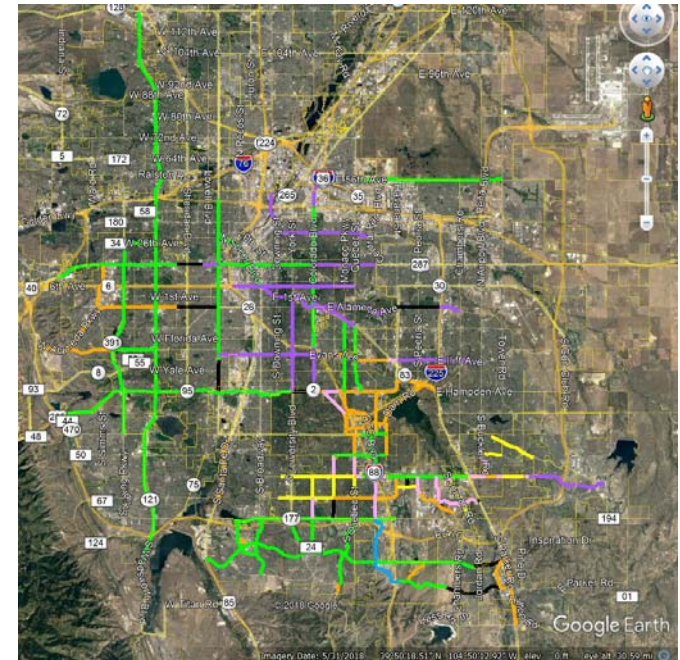
## Operation project benefits – past 10 years

- Projects for local governments, RTD, CDOT, and others
- Traffic signal system coordination
  - 140 Arterial streets; 2,000 signalized intersections
  - Annual average reduction (weekdays) benefits:
    - 3 million vehicle hours of delay
    - 250 tons of pollutant emissions
    - 2.4 million gallons of fuel; 25,000 tons of GHG emissions
- Capital improvement projects (150+)
  - Signal system infrastructure (related to coordination projects)
  - Transit signal priority systems; bicycle detection
  - Dynamic message signs, cameras, monitoring
  - 60 fiber communications projects
  - Feasibility studies; regional data warehouses



## Background: Region's 2019 starting point

- Nearly 4,000 signalized intersections
  - 70% interconnected
- Over 1,300 CCTV cameras
- Hundreds of miles of fiber optic networking
- ~500 miles of fully monitored corridors
- 80 intersections with bicycle detection
- Automatic vehicle location (AVL) devices on RTD vehicles





# Update on RTO&T TIP Set-Aside Program

- New 2020-2023 Transportation Improvement Program (TIP)
- \$5 Million per year for RTO&T (Total = \$20 million over 4 years)
  - \$7 Million already programmed
  - Approximately \$13 Million remaining for projects
- Call for projects in early 2020
- RTO&T Strategic Plan to guide the call
  - Advanced Mobility Partnership (AMP) – policy guidance
    - Tactical Action of the Mobility Choice Blueprint
    - AMP Working Group starting up soon
    - DRCOG's new Transportation Technology Strategist position
    - Policy direction from Metro Vision Regional Transportation Plan
  - RTO Working Group – technical input and recommendations



# RTO Working Group Technical Priorities

## Regional Coordination Operational Concepts

- Data and information sharing
  - Open access to data
    - Real time response
    - Planning purposes
- Performance monitoring
  - Compatible and interoperable traffic signal systems
  - Priority corridors
- Situational awareness and coordination
  - Sharing of local data and information
  - Coordinated and cooperative response



DISCUSSION / QUESTIONS?

**ATTACH H**

## ATTACHMENT H

To: Chair and Members of the Transportation Advisory Committee

From: Ron Papsdorf, Director, Transportation Planning & Operations  
303-480-6747 or [rpapsdorf@drcog.org](mailto:rpapsdorf@drcog.org)

Meeting Date	Agenda Category	Agenda Item #
September 23, 2019	Informational	10

### SUBJECT

CDOT State Highway funding allocation discussions.

### PROPOSED ACTION/RECOMMENDATIONS

N/A

### ACTION BY OTHERS

N/A

### SUMMARY

#### Funding

Over the past three years, the Colorado Legislature has enacted three transportation funding bills that increase revenues to CDOT for state highways.

SB17-267 authorizes lease-purchase agreements on state facilities totaling \$2 billion, in equal amounts over four years, beginning FY '18-'19. CDOT receives \$1.8 billion of those proceeds, with the remainder dedicated to controlled maintenance and capital projects on state buildings. At least 10% of CDOT's proceeds will be dedicated to transit projects and at least 25% of the funding must be spent on these projects in counties that have a population of 50,000 or less (rural). The first year has been previously allocated by the Transportation Commission, along with a portion of the second year resources.

SB18-001 creates two years of transfers from the General Fund for transportation purposes and 20 years of additional General Fund transfers to the State Highway Fund. The amounts allocated to the State Highway Fund for FY 18/19 through FY 21/22 total \$601.5 million.

SB19-262 transfers \$100 million from the General Fund to the Highway Users Tax Fund to be distributed to the State Highway Fund and local governments on July 1, 2019. Of the \$100 million transfer, \$60 million is transferred to the State Highway Fund.

All told, CDOT is considering allocations from these sources to projects and programs over the next several years of between \$615 million and \$1.5 billion, depending on if the final two years of the SB17-267 lease purchase agreement funds are allocated now.

#### DRCOG Input

In order to provide input to CDOT on regional priority projects, DRCOG staff is beginning to evaluate candidate state highway projects from a variety of sources, including the 2040 Financially Constrained Metro Vision Regional Transportation Plan (MVRTP), Proposition 110 projects, and the 2020-2023 TIP Waiting List (Attachment 1). As part of the Regional Vision Zero effort, a preliminary High Injury Network (HIN) has also been identified and cross-checked against those lists.

Other considerations include a focus on corridor-level improvements with high mobility impact rather than smaller-scale projects; an emphasis on urban arterial multimodal enhancements; safety improvement; and readiness.

### **Questions and Uncertainties**

The Transportation Commission will begin discussing options and their priorities at the September 18, 2019 Commission Workshop (Attachment 2). Therefore, it is not yet known how the Commission will allocate the funds, whether they want to allocate years 3 and 4 of SB17-267 funds, whether they will identify one or more statewide programs such as asset management as a priority, or whether a funding target will be established for each CDOT region.

In the meantime, DRCOG will be considering a number of options and priorities in order to be able to weigh in on and respond to those deliberations and decisions.

<b>PREVIOUS DISCUSSIONS/ACTIONS</b>
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N/A

<b>PROPOSED MOTION</b>
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N/A

<b>ATTACHMENTS</b>
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1. Preliminary DRCOG Candidates for CDOT State Highway Funding
2. September 18, 2019 CDOT Memo: Discussion of Available Funds for Programming

<b>ADDITIONAL INFORMATION</b>
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For additional information, please contact Ron Papsdorf, Director, Transportation Planning & Operations, at 303-480-6747 or [rpapsdorf@drcog.org](mailto:rpapsdorf@drcog.org).

DRCOG Candidates for CDOT State Highway Funding

September 12, 2019

Roadway	Project Location (Limits)	Improvement Type	Length (Miles)	Network Staging Period	Remaining Project Cost (FY '15 \$millions)	Project Funding Status	County	Regional	2020-23	Prop 110	Notes
								Vision Zero Plan Draft HIN	TIP Wait List		
2040 Financially Constrained Metro Vision Regional Transportation Plan Projects											
C-470	Wadsworth Blvd. to I-25	Add Toll Managed Lanes			\$220.00	Under Const./Complete	Douglas/Jefferson				
	EB: Wadsworth Blvd. to I-25	Add 1 New Toll/Managed Lane	10.8	2015-2019			Douglas/Jefferson				
	WB: I-25 to Colorado Blvd.	Add 2 New Toll/Managed Lanes	4.1	2015-2019			Douglas				
	WB: Colorado Blvd. to Wadsworth Blvd.	Add 1 New Toll/Managed Lane	8.2	2015-2019			Douglas/Jefferson				
C-470	S. Kipling Pkwy. to I-25	Add New Toll/Managed Lanes									
	WB: Wadsworth Blvd. to S. Kipling Pkwy.	Add 1 Toll/Managed Lane	1.4	2020-2029	\$45.00		Jefferson				
	EB: S. Kipling Pkwy. to Wadsworth Blvd.	Add 1 Toll/Managed Lane	3.0	2020-2029			Jefferson				
	WB: Colorado Blvd. to Lucent Blvd.	Add 1 Toll/Managed Lane	3.7	2020-2029	\$120.00		Douglas				
	EB: Broadway to I-25	Add 1 Toll/Managed Lane	6.6	2020-2029			Douglas				
104th Ave.	Colorado Blvd. to McKay Rd.	Widen from 2 to 4 Lanes	0.7	2020-2029	\$8.10		Adams			X	\$20m Colorado to US85
104th Ave.	McKay Road to US-85	Widen from 2 to 4 Lanes	1.9	2020-2029	\$40.60		Adams				
6th Ave.	Tower Rd. to 6th Pkwy.	Widen from 2 to 6 Lanes	1.6	2020-2029	\$14.10		Arapahoe				
Arapahoe Rd.	Havana St. (or Jordan Rd.)	New Grade Separation		2030-2040	\$16.00		Arapahoe				
Federal Blvd.	6th Ave. to Howard Pl.	Widen from 5 to 6 Lanes	0.8	2015-2019	\$23.36	Under Const./Complete	Denver				
Gun Club Rd.	Yale Ave. to Mississippi Ave.	Widen from 2/4 to 6 Lanes	2.1	2030-2040	\$10.90		Arapahoe			X	\$45m Quincy to Jewell
Hampden Ave./ S. Havana St.	Florence St. to s/o Yale Ave.	Widen from 5 to 6 Lanes	1.4	2030-2040	\$14.00		Denver				
I-225	I-25 to Yosemite St.	Interchange Capacity		2030-2040	\$43.00	Pilot Project	Denver			X	\$61.4m
I-25	El Paso County Line to n/o Crystal Valley Pkwy.	Add 1 Toll/Managed Lane each direction	15.7	2020-2029	\$300.00	Under Const./Complete	Douglas				
I-25	Arapahoe Rd.	Interchange Capacity		2015-2019	\$50.40	Under Const./Complete	Arapahoe				
I-25	Santa Fe Dr. (US-85) to Alameda Ave.	Interchange Capacity		2020-2029	\$27.00	Funding in TIP	Denver				
I-25	Alameda Ave. to Walnut St. (Bronco Arch)	Add 1 New Lane in each direction	2.6	2020-2029	\$30.00	PEL Underway	Denver			X	\$134.1m Alameda to 6th
I-25	84th Ave. to Thornton Pkwy.	Add 1 New NB Lane	1.3	2020-2029	\$30.00		Adams			X	\$85.3m
I-25	84th Ave. to Thornton Pkwy.	Add 1 New SB Lane	1.3	2020-2029	\$30.00		Adams				
I-25	US-36 to 120th Ave.	Add 1 Toll/Managed Lane each direction	5.9	2015-2019	\$68.52	Under Const./Complete	Adams				
I-25	120th Ave. to SH-7	Add 1 Toll/Managed Lane each direction	6.0	2020-2029	\$55.00	Under Const./Complete (to E-470)	Adams/Broomfield				
I-25	SH-66 to WCR 38 (DRCOG Boundary)	Add 1 Toll/Managed Lane each direction	4.1	2020-2029	\$172.00		Weld			X	\$653m SH66 to SH402
I-25	Lincoln Ave.	Interchange Capacity		2020-2029	\$49.40	Pre-con in TIP	Douglas				
I-25	Broadway	Interchange Capacity		2020-2029	\$50.00	Funding in TIP	Denver				
I-25	Ridgegate Pkwy. to County Line Rd. S. Ramps	Widen from 6 to 8 Lanes	2.7	2015-2019	\$0.00	Under Const./Complete	Douglas				
I-25	Castlegate Dr.	Add New Interchange		2015-2019	\$15.30		Douglas				
I-25	Crystal Valley Pkwy.	Add New Interchange		2020-2029	\$44.50		Douglas				
I-270	I-25 to I-70	Widen from 4 to 6 Lanes	6.3	2030-2040	\$160.00		Adams			X	\$398.8m (potential toll rev)
I-270	Vasquez Blvd. (US 6/85)	Interchange Capacity		2020-2029	\$60.00		Adams			X	\$81.9m
I-70	Empire Junction (US-40) to Twin Tunnels	Add/Convert 1 new EB Peak Period Managed Lane	9.6	2015-2019	\$24.00	Under Const./Complete	Clear Creek				
I-70	Twin Tunnels to Empire Junction (US-40)	Add 1 WB Peak Period Managed Lane	9.6	2020-2029	\$50.00	Under Const./Complete	Clear Creek			X	
I-70	Vicinity of US-6 and Floyd Hill	TBD		2030-2040	\$100.00	NEPA Underway	Clear Creek			X	\$550m
I-70	I-25 to Chambers Rd.	Add 2 New Managed Lanes	3.8	2020-2029	\$1,175.70	Under Const./Complete	Denver/Adams				
I-70	E-470	Interchange Capacity		2030-2040	\$100.00		Adams/Arapahoe				
I-70	Harvest Mile Rd.	Add New Interchange		2020-2029	\$39.57		Adams/Arapahoe				
I-70	32nd Ave.	Interchange Capacity		2020-2029	\$22.40		Jefferson				

DRCOG Candidates for CDOT State Highway Funding

September 12, 2019

Roadway	Project Location (Limits)	Improvement Type	Length (Miles)	Network Staging Period	Remaining Project Cost (FY '15 \$millions)	Project Funding Status	County	Regional Vision Zero Plan Draft HIN	2020-23 TIP Wait List	Prop 110	Notes
I-70	Picadilly Rd.	Add New Interchange		2020-2029	\$27.49		Adams				
I-76	Bridge St.	Add New Interchange		2020-2029	\$25.40		Adams				
Kipling St.	Colfax Ave. to I-70	Widen from 4 to 6 Lanes	3.0	2030-2040	\$18.00		Jefferson				
Parker Rd.	Quincy Ave. to Hampden Ave.	Widen from 6 to 8 Lanes	1.0	2030-2040	\$18.50		Arapahoe				
Quebec St.	35th Ave. to Sand Creek Dr. S.	Widen from 4 to 6 Lanes	1.2	2020-2029	\$11.00		Denver				
SH-119	SH-52	New Interchange		2020-2029	\$30.00	Ops Imp. Design in TIP	Boulder			X	\$130m
SH-119	Foothills Pkwy to US-287	Bus Rapid Transit	11.0	2020-2029	\$57.00		Boulder				
SH-30	Steve D. Hogan Pkwy. To Mississippi Ave.	Widen from 2 to 4 Lanes	2.2	2020-2029	\$18.00		Arapahoe				
SH-58	Cabela St.	Add New Interchange		2020-2029	\$19.56		Jefferson				
SH-66	Hover St. to Main St. (US-287)	Widen from 2 to 4 Lanes	1.5	2030-2040	\$19.00	PEL Underway	Boulder				
SH-7	Riverdale Rd. to US-85	Widen from 2 to 4 Lanes	1.1	2030-2040	\$16.32		Adams				
SH-7	Boulder County Line to Sheridan Pkwy.	Widen from 2 to 4 Lanes	2.5	2020-2029	\$6.60		Broomfield				
SH-7	Sheridan Pkwy. to I-25	Widen from 2 to 6 Lanes	1.5	2020-2029	\$10.17		Broomfield				
SH-7	York St. to Big Dry Creek	Widen from 2 to 4 Lanes	0.7	2020-2029	\$8.00	Env & 30% design in TIP	Adams			X	\$112m
SH-7	164th Ave. to Dahlia St.	Widen from 2 to 4 Lanes	2.2		\$24.00		Adams				
	164th Ave. to York St.	Widen from 2 to 4 Lanes	0.8	2020-2029			Adams				
	Big Dry Creek to Dahlia St.	Widen from 2 to 4 Lanes	0.8	2020-2029			Adams				
Sheridan Blvd.	I-76 to US-36	Widen from 4 to 6 Lanes	4.5	2020-2029	\$23.00		Adams/Jefferson	X			
US-285	Pine Junction to Richmond Hill										
	Pine Valley Rd. (CR 126)/Mt Evans Blvd.	New Interchange		2030-2040	\$14.00		Jefferson				
	Kings Valley Dr.	New Interchange		2020-2029	\$11.00		Jefferson				
	Kings Valley Dr. to Richmond Hill Rd.	Widen from 3 to 4 Lanes (Add 1 SB Lane)	0.9	2020-2029	\$10.00		Jefferson			X	\$70.6m
	Shaffers Crossing to Kings Valley Dr.	Widen from 3 to 4 Lanes (Add 1 SB Lane)	1.4	2020-2029	\$12.00		Jefferson				
	Parker Ave.	New Interchange		2030-2040	\$9.00		Jefferson				
US-36	I-25 Express Lanes to Table Mesa Dr.	Add 1 Toll/Managed Lane each direction	17.2	2015-2019	\$0.00	Under Const./Complete	Regional				
US-36	Sheridan Blvd.	Interchange Capacity		2015-2019	\$0.00	Under Const./Complete	Jefferson				
US-6	19th St.	New Interchange		2015-2019	\$20.00	Under Const./Complete	Jefferson				
US-6	Wadsworth Blvd.	Interchange Capacity		2020-2029	\$60.00		Jefferson			X	\$68.2m
US-6	Federal Blvd. to Bryant St.	Interchange Capacity		2015-2019	\$0.00	Under Const./Complete	Denver				
US-85	104th Ave.	New Interchange		2020-2029	\$65.00		Adams				
US-85	120th Ave.	New Interchange		2020-2029	\$65.00	Partial funding in TIP	Adams			X	\$76.2m
US-85	Highlands Ranch Pkwy. to n/o County Line Rd.	Widen from 4 to 6 Lanes	2.1	2020-2029	\$50.10		Douglas				
US-85	Titan Rd. to Highland Ranch Pkwy.	Widen from 4 to 6 Lanes	2.2	2030-2040	\$5.90		Douglas				
US-85	Castlegate Dr.	Add New Interchange		2015-2019	\$31.75		Douglas				
US-85	Meadows Pkwy. to Louviers Ave.	Widen from 2 to 4 Lanes	5.7		\$59.00	Partial funding in TIP	Douglas				
	Meadows Pkwy. to Daniels Park Rd.			2020-2029						X	\$49.5m
	Daniels Park Rd. to SH-67 (Sedalia)			2020-2029							
	MP 191.75 to Louviers Ave.			2015-2019							
Wadsworth Blvd.	35th Ave. to 48th Ave.	Widen from 4 to 6 Lanes	1.2	2020-2029	\$31.00	Under Const./Complete	Jefferson			X	\$50m 38th to I-70
Wadsworth Pkwy.	92nd Ave. to SH-128	Widen from 4 to 6 Lanes	3.7	2030-2040	\$31.60		Jefferson				

DRCOG Candidates for CDOT State Highway Funding

September 12, 2019

Roadway	Project Location (Limits)	Improvement Type	Length (Miles)	Network Staging Period	Remaining Project Cost (FY '15 \$millions)	Project Funding Status	County	Regional Vision Zero Plan Draft HIN	2020-23 TIP Wait List	Prop 110	Notes
Other Prop 110 Priorities											
C-470	US 285 and Morrison Road	Reconstruct interchanges			\$136.70		Jefferson			X	\$136.7m
Colfax	I-25 to Yosemite	Roadway and pedestrian operational and safety improvements			\$20.00		Denver			X	\$20m
Federal	Hampden to 52nd	Roadway and pedestrian safety improvements			\$30.00		Denver	X		X	\$30m
I-25	Speer and 23rd Bridges	Bridge replacement			\$57.20		Denver			X	\$47.14m
I-25	Bellevue	Interchange improvements			\$90.00		Arapahoe			X	\$90m
I-25	SH-7 Interchange	Replace interchange			\$70.00		Adams/Broomfield			X	\$70m
I-70	Kipling Interchange	Diverging Diamond Interchange			\$63.80		Jefferson			X	\$63.82m
SH-119	Gilpin County	Shoulder widening			\$13.40		Gilpin			X	\$13.4m outside MPO
SH-30	Quincy-Jewell	Road widening and operational/saftey improvements			\$45.00		Arapahoe			X	\$45m
SH-42	Louisville to Lafayette	Highway and multimodal improvements			\$12.30		Boulder			X	\$12.3m
SH-95	Sheridan	Lane balancing/mulimodal grade separation of US 36 bikeway			\$8.00		Jefferson/Adams			X	\$8.8m funded in 20-23 TIP
US-287	SH-66 to US-36	Highway and multimodal improvements			\$45.00		Boulder/Broomfield			X	\$45m
US-36	at 28th Street and SH-93/Broadway	Operational imrpovements			\$26.00		Boulder			X	\$26m
US-6	Heritage Rd Interchange	Construct new interchange			\$41.50		Jefferson			X	\$41.5m
US-85	Adams/Weld County corridor	Corridor improvements			\$43.40		Adams/Weld			X	\$43.4m
2020-2023 DRCOG TIP Wait List Projects											
US-85	Santa Fe/Mineral	Intersection improvements			\$6.00		Arapahoe		X		
Bowles	Bowles/Federal	Intersection improvements			\$3.40		Arapahoe		X		
SH-7	SH-7/Arapahoe	Bridge Replacement			\$4.20		Boulder		X		
SH-7	SH-7/95th	Intersection improvements			\$5.20		Boulder		X		
Parker Rd	various locations	Signal operations improvements			\$1.00		Douglas		X		
SH-119	Nelson to Pratt	Operational improvements			\$3.00		Boulder		X		



**COLORADO**  
**Department of Transportation**  
Division of Transit & Rail

2829 W. Howard Place 4<sup>th</sup> Floor  
Denver, CO 80204

**DATE:** September 18, 2019  
**TO:** Transportation Commission  
**FROM:** Rebecca White, Director, Division of Transportation Development  
Jeff Sudmeier, Chief Financial Officer  
Joshua Laipply, Chief Engineer  
Sophie Shulman, Chief of Innovative Mobility  
**SUBJECT:** Discussion of Available Funds for Programming

Purpose

The purpose of this memorandum is to summarize and inform the Transportation Commission on funds for programming made available from the Colorado General Assembly through Senate Bill 17 - 267, Senate Bill 18 - 1, and Senate Bill 19 -262.

Action

None. Information only.

Background

Starting in 2017, the Colorado General Assembly passed a several pieces of legislation (Senate Bill 17 - 267, Senate Bill 18 - 1, and Senate Bill 19 -262) that increased funding for transportation infrastructure. In July and October, 2018 the Transportation Commission approved projects for funding with proceeds from Senate Bill 18 - 1 and Senate Bill 17 - 267 respectively. Given the upcoming distribution of the next tranche of SB267 funding, staff is seeking input and guidance on how to approach the programming of available funds.

Details

Staff seeks the Transportation Commission's guidance on how to approach the programming of these funds. Staff has several key questions:

1. What funding level should staff assume?
2. How should previous decision items be incorporated?
3. How does the Commission want to prioritize investment in major capital projects vs. asset management (surface treatment) projects?

***What Funding Level Should Staff Assume?***

The funding legislation in the aforementioned bills carries the potential for multi-year funding through the issuance of Certificates of Participations (COPs) and General Fund Transfers. Moreover, the General Assembly recently passed an additional General Fund transfer in the form of Senate Bill 19 -262. The net result is \$665M in funds available for programming in FY 20 with 10% dedicated to transit. However, the potential also exists for an additional \$500M in both FY 21 and FY 22. If those transfers were to be made, \$1.665B would be available for programming.

***How should previous decision items be incorporated?***

The Transportation Commission previously identified a number of projects for funding through Senate Bill 17-267 and Senate Bill 18-1. Staff seeks direction on whether these projects remain a priority for the Transportation Commission.

***How does the Commission want to prioritize investment in major capital projects vs. asset management (surface treatment) projects?***

Staff received a list of guiding principles from the the Transprotation Commission that was used to formulate a series of scenarios to assist in identifying the Transportation Commission's investment philosphy in balancing the needs of capital/mobility projects and asset mangement projects. These include:

- *Scenario 1 - High Asset Mangement*: This scenario would place \$355M per year (for 3 years) in surface treatment funds (\$1.065B), with \$110M per year (for 3 years) invested in rural paving (\$330M). \$150M per year (for 3 years) would be invested in major capital projects (\$450M). The transit/multimodal portion would emphasize lane striping, sidewalks, shelter/stop improvements to accommodate pedestrians, bicycles and transit associated with rural paving. There would be fewer mobility hubs associated with major capital projects.
- *Scenario 2 - High Major Capital Projects*: This scenario would place \$110M per year (for three years) in rural paving (\$330M) and \$395M per year (for three years) in major capital projects (\$1.185B). The transit/multimodal portion would emphasize mobility hubs associated with major capital projects and see reduced investment in lane striping, sidewalks and shelter/stop improvements for peds, bicycles & transit associated with rural paving.
- *Scenario 3 - Funding Mix*: This scenario would place \$272M per year (for three years) in surface treatment funds (\$816M), with \$110M per year (for three years) in rural paving (\$330M). \$233M per year (for three years) would be invested in major mobility projects (\$700M). The transit/multimodal portion would blend of lane striping, sidewalks, and shelter/stop improvements to accommodate pedestrians, bicycles, and transit; with a moderate number of mobility hubs.

#### Next Steps

- October 2018 - Transportation Commission review of proposed new funding project list, as well as project modeling and benefits analysis.
- November 2018 - Transportation Commission approval of new funding project list.
- December 2018 - Transportation Commission adoption of new funding project list.

#### Attachments

- Attachment A - Discussion of Available Funds for Programming



# Discussion of Available Funds for Programming

Colorado Transportation Commission

September 18, 2019



**COLORADO**

**Department of Transportation**

# **FUNDING SOURCES**



# New General Funding

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- Senate Bill 17-267
- Senate Bill 18-001
- Senate Bill 19-262



# Funding Amounts

Funding Source	FY 20		FY 21		FY22		Totals	
SB267	Hwy \$450M	Transit \$50M	Hwy \$450M	Transit \$50M	Hwy \$450M	Transit \$50M	Hwy \$1,350B	Transit \$150M
SB 262	\$60M		\$0		\$0		\$60M	
SB1	\$105M		\$0		\$0		\$105M	
Totals	\$665M		\$500M		\$500M		\$1,665	



**COLORADO**

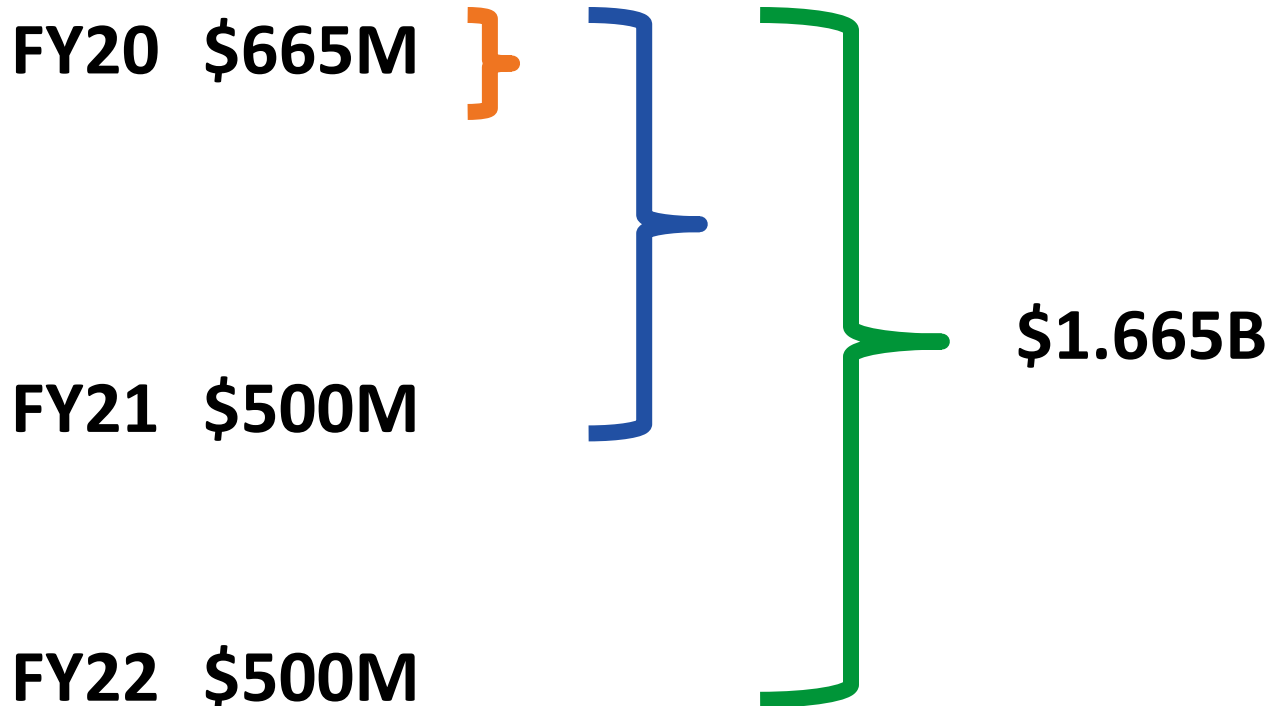
**Department of Transportation**

# **KEY QUESTIONS FOR COMMISSION**

- 1-How much \$ to plan for**
- 2-Decision on Previous Items**
- 3-Guidance on use of funds**



# 1) What SB-1, SB-262, and SB-267 funding levels should we assume?





## 2) Decision on Previous Items

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- I-25 North - up to \$310M?
- Previously identified SB 267 projects - \$121.5M?
- Burnham Yard?



# Previously Identified SB 267 Projects



**SB 267 / SB 1 Projects and Programs (After Reallocation)**

Region	Project / Area	SB1 Year 1 July 2018	SB267 Year 1 Oct 2018	Total SB 1 / SB 267	Federal Grants	Local or Private Funds	Other CDOT Funds	Additional Funding Need	Total including Federal Grants and Other Funds
1	I-25 Gap	\$37.6M	\$212.4M	\$250.0M	\$65.0M	\$35.0M	\$2.5M		\$352.5M
1	I-70 WB PPSL	\$25.0M	\$20.0M	\$45.0M	\$25.0M			\$35.0M	\$105.0M
3	SH 13 Rio Blanco and Wyoming South	\$20.0M	\$30.5M	\$50.5M				\$10.8M	\$61.3M
3	SH 9 Frisco North		\$9.5M	\$9.5M				\$6.0M	\$15.5M
3	US 50 Little Blue				\$21.5M			\$12.0M	\$33.5M
4	I-25 Seg. 5 & 6	\$20.0M	\$76.2M	\$96.2M	\$20.0M	\$2.0M	\$101.2M	\$20.0M	\$239.4M
4	I-70 Replacing Failing Pavement	\$23.9M	\$33.1M	\$57.0M					\$57.0M
5	US 160 Towaoc Passing Lanes	\$9.0M		\$9.0M	\$2.0M				\$11.0M
5	US 550/160 Connection	\$54.4M		\$54.4M	\$12.3M	\$2.0M	\$23.1M	\$2.2M	\$94.0M
	<b>Total Projects</b>	<b>\$189.9M</b>	<b>\$381.7M</b>	<b>\$571.6M</b>	<b>\$145.8M</b>	<b>\$39.0M</b>	<b>\$126.8M</b>	<b>\$121.5M</b>	<b>\$1,004.7M</b>
	Preconstruction	\$51.6M		\$51.6M					\$51.6M
	Asset Management	\$100.0M		\$100.0M					\$100.0M
	ADA Improvements	\$5.0M		\$5.0M					\$5.0M
	Transit/Multimodal	\$71.8M	\$42.4M	\$114.2M					\$114.2M
	SW Chief/Front Range Passenger Rail	\$2.5M		\$2.5M					\$2.5M
	<b>Total Programs</b>	<b>\$230.9M</b>	<b>\$42.4M</b>	<b>\$273.3M</b>					<b>\$273.3M</b>
	<b>Total Projects and Programs</b>	<b>\$420.8M</b>	<b>\$424.1M</b>	<b>\$844.9M</b>	<b>\$145.8M</b>	<b>\$39.0M</b>	<b>\$126.8M</b>	<b>\$121.5M</b>	<b>\$1,278.0M</b>
	Highway	\$346.5M	\$381.7M	\$728.2M					
	Transit/Multimodal	\$74.3M	\$42.4M	\$116.7M					



## 3) Guidance on Use of Remaining Funds

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- Guiding Principles & Potential Criteria
- Scope of Need
  - Asset Management
  - Mobility Safety



# Guiding Principles

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- Safety
- Asset Management / Preservation Benefits
- Mobility
- Financial Leverage, Financial innovation, and Partnerships
- Statewide Equity
- Economic Impacts
- Integrated System Impacts and Benefits
- Short term projects vs. Accommodating Long-Term Projects trends
- How does the system look in 30 years and how does this project fit in?
- Programs and projects leveraging new technology development
- Regional flexibility / related smaller scale projects
- Impact of Asset Management decision on asset life and function
- Is the project informed by extensive collaborative work already done on Prop 110 project list and existing regional / local planning and what are the reasons for deviating from these?



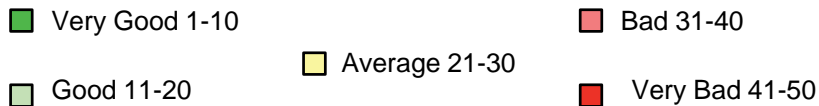
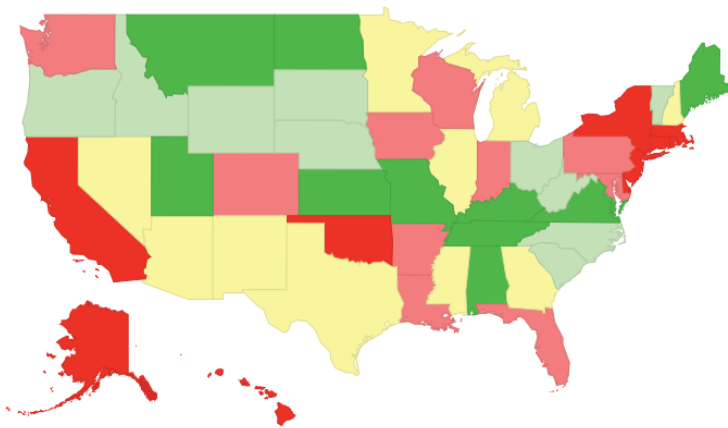
# Potential Criteria

Guiding Principle	Potential Criteria
<ul style="list-style-type: none"> <li>• Mobility</li> <li>• Programs and projects leveraging new technology development</li> <li>• Integrated System Impacts and Benefits</li> </ul>	<b>Mobility</b> - Extent to which project addresses a mobility need, including congestion reduction, improved reliability, new or improved connections, eliminations of “gaps” or continuity issues, new or improved multimodal facilities, improves efficiency through technology, or improved access to multimodal facilities
<ul style="list-style-type: none"> <li>• Asset Management / Preservation Benefits</li> <li>• Impact of Asset Management decision on asset life and function</li> </ul>	<b>Asset Life</b> – Extent to which project addresses asset life, including improving Low Drivability Life pavement or poor rated structures
<ul style="list-style-type: none"> <li>• Economic Impacts</li> <li>• Statewide Equity</li> </ul>	<b>Economic Vitality</b> – Extent to which a project supports the economic vitality of the state or region, including supporting freight, agricultural, or energy needs, or providing or improving access to recreation, tourism, military, job, or other significant activity centers
<ul style="list-style-type: none"> <li>• Safety</li> </ul>	<b>Safety</b> – Extent to which project addresses safety deficiencies at locations with known safety issues (as indicated by Level of Safety Service (LOSS) 3 or 4), or other known or projected safety issues
<ul style="list-style-type: none"> <li>• Financial Leverage, Financial innovation, and Partnerships</li> <li>• Short term projects vs. Accommodating Long-Term Projects trends</li> <li>• How does the system look in 30 years and how does this project fit in?</li> </ul>	<b>Strategic Nature</b> - Strategic nature of project, regional or statewide significance, leverages innovative financing and partnerships, and balances short term needs vs. long term trends.
<ul style="list-style-type: none"> <li>• Is the project informed by extensive collaborative work already done on Prop 110 project list and existing regional / local planning and what are the reasons for deviating from these?</li> <li>• Regional flexibility / related smaller scale projects</li> </ul>	<b>Regional Priority</b> - Priority within the Region, based on planning partner input including priorities expressed in Regional Transportation Plans



# Asset Management

## Colorado Ranks 36th in the Nation in Highway Performance



Category	Rank
Rural Interstate Pavement Condition	47
Urban Interstate Pavement Condition	28
Rural Arterial Pavement Condition	27
Urban Arterial Pavement Condition	33
Urbanized Area Congestion	37
Structurally Deficient Bridges	13
Overall Fatality Rate	23
Rural Fatality Rate	33
Urban Fatality Rate	32

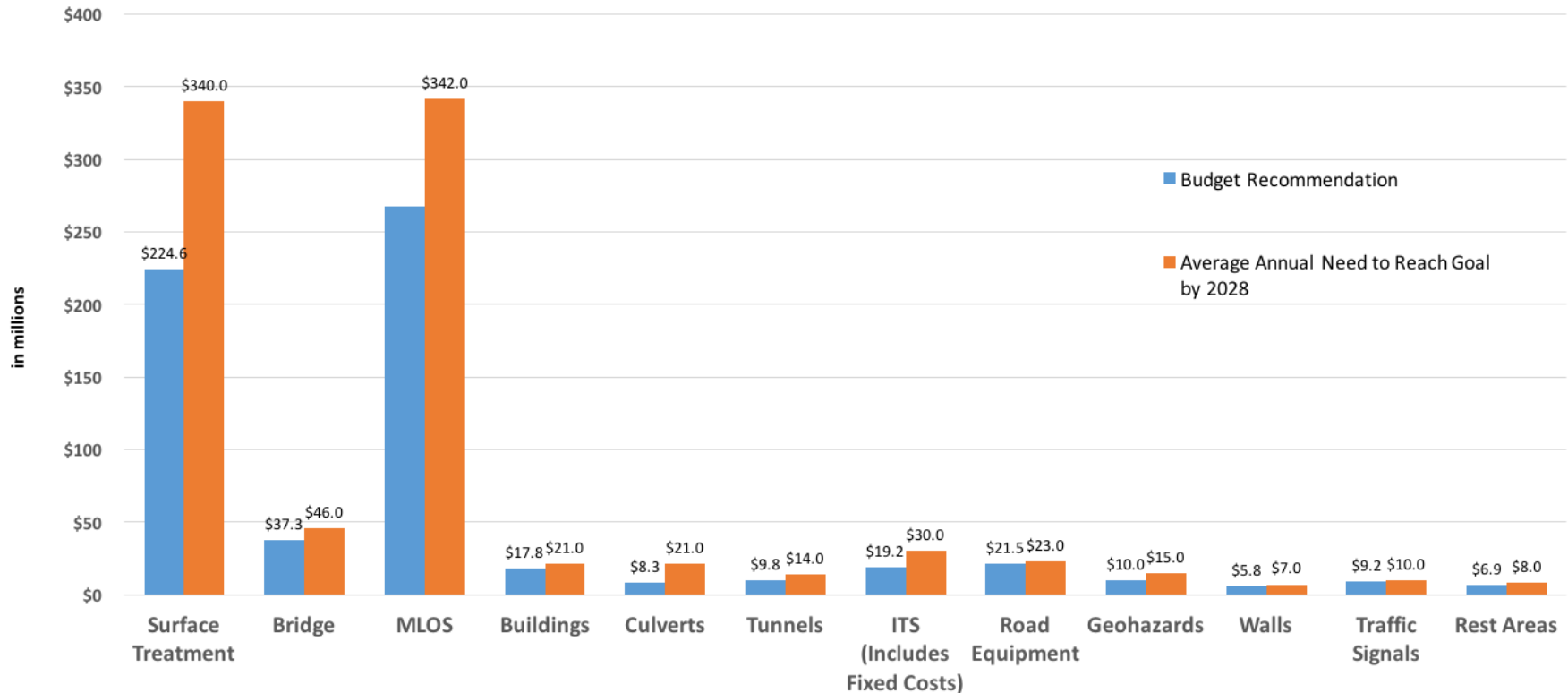
Pavement Management team also tracking on potential of not meeting our national performance measures target for poor pavement condition.

<https://reason.org/topics/transportation/annual-highway-report/>



# Asset Management Need

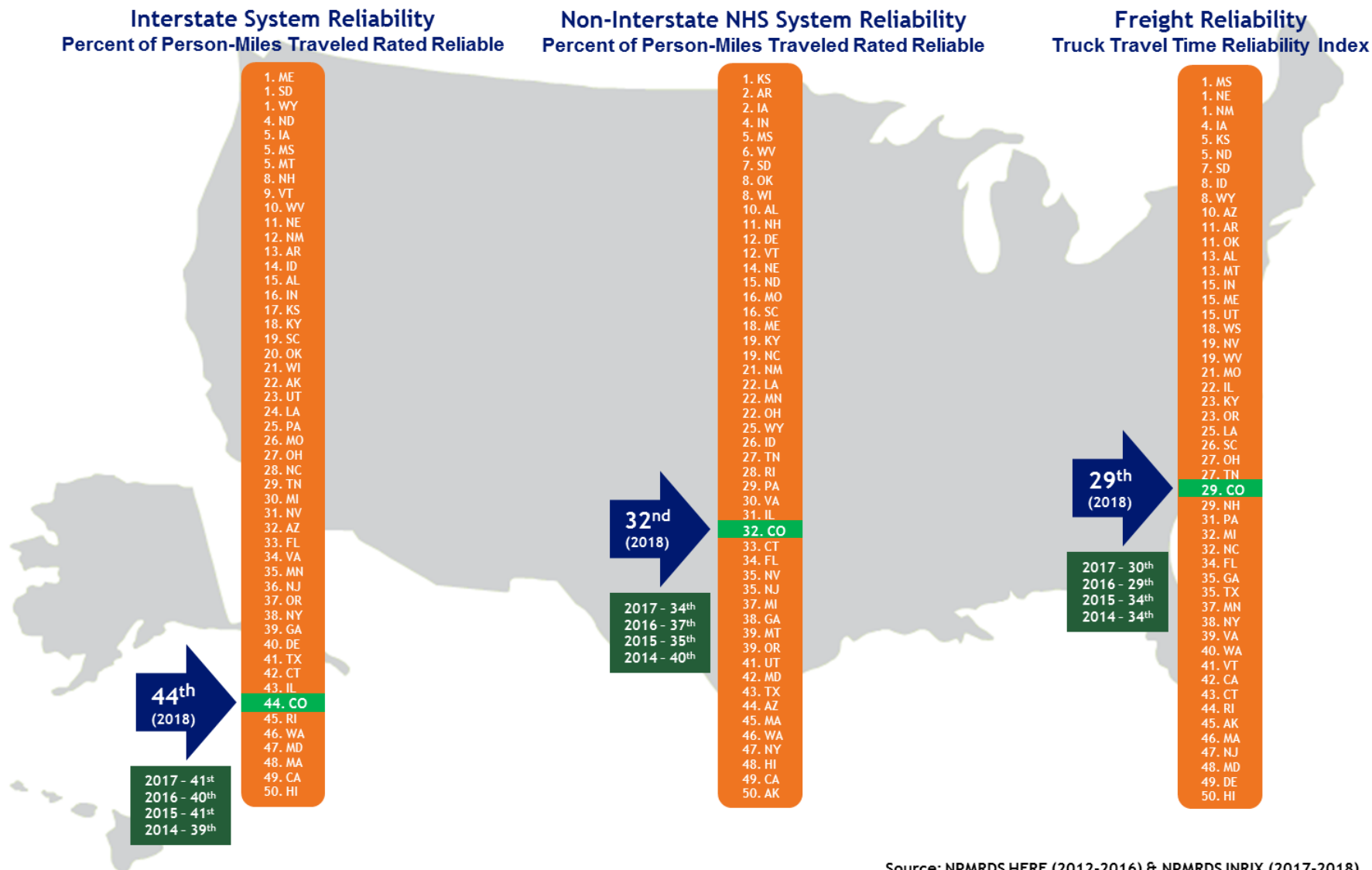
## Recommended FY23 Planning Budgets vs. Needs



Note: Cost to achieve Surface Treatment goal is based on PD-14 goal, not National Performance Measure goal.



# System Reliability Ranking



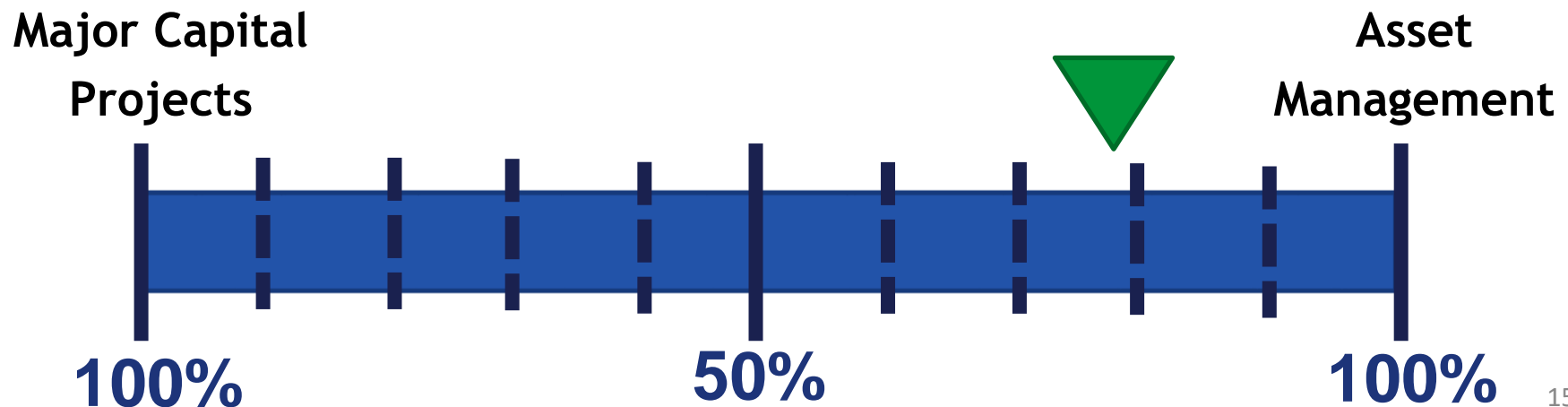
Source: NPMRDS HERE (2012-2016) & NPMRDS INRIX (2017-2018)



# Programmatic Asset Management vs. Major Capital Projects (New Funding)

## Scenario #1 - High Asset Management

- \$355M per year (for 3 years) in surface treatment funds = \$1.065B
  - \$110M per year (for 3 years) in rural paving = \$330M
- \$150M per year (for 3 years) in major capital projects = \$450M
- Multimodal Focus
  - Emphasize lane striping, sidewalks, shelter/stop improvements to accommodate pedestrians, bicycles and transit associated with rural paving;
  - Fewer mobility hubs associated with major capital projects.





# Funding Rural Roads

Investing \$300 million over three years for rural, non-Interstate highways would treat an

***additional 500-750 centerline***

miles. Many of these roads have not been treated for 10-20 years.

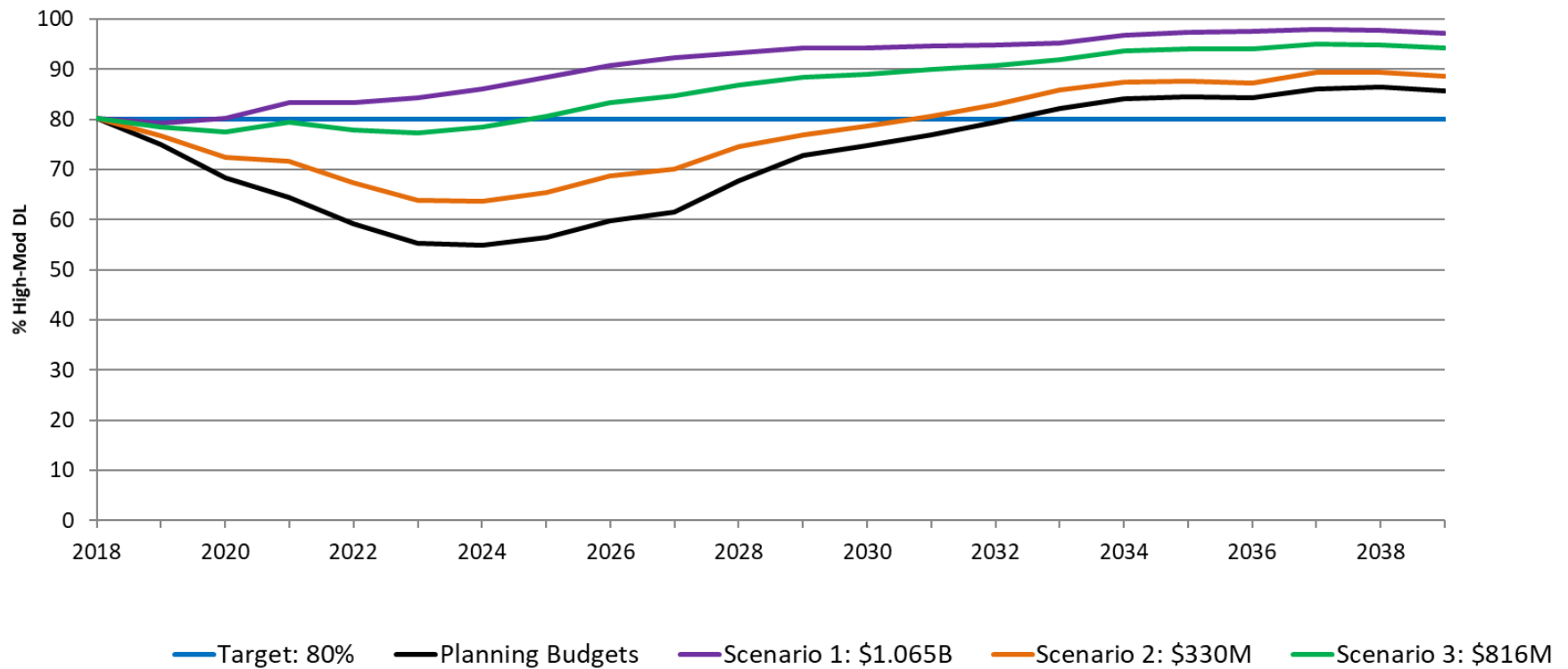




# Asset Management Need

## Pavements - Percent High/Moderate Drivability Life

Fiscally Constrained Target is 80%



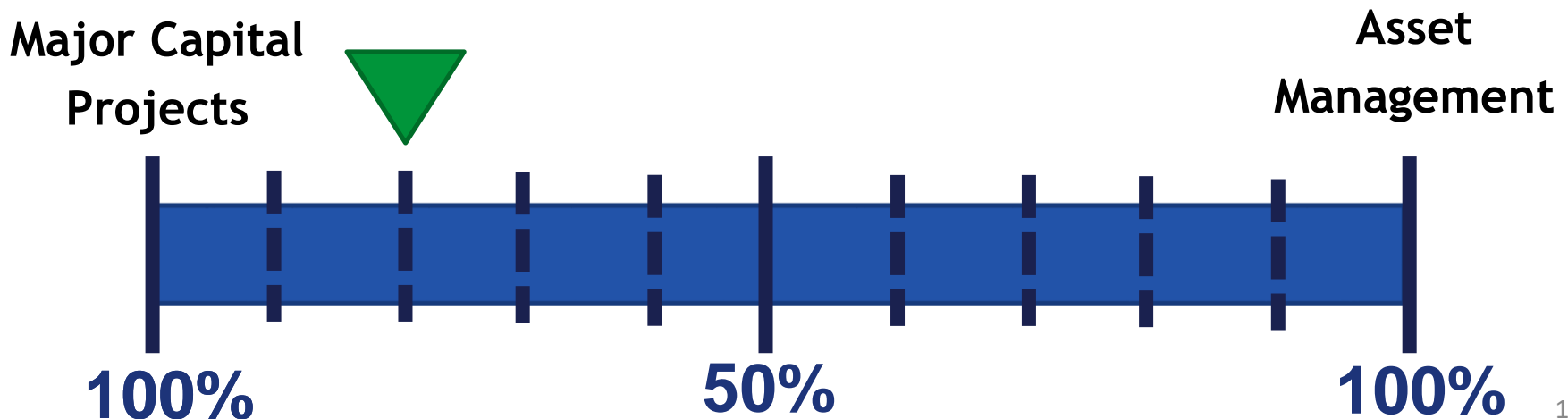
*Performance curves assume long-term investments at higher amounts (beyond 3-yr SB267 funding).*



# Programmatic Asset Management vs. Major Capital Projects

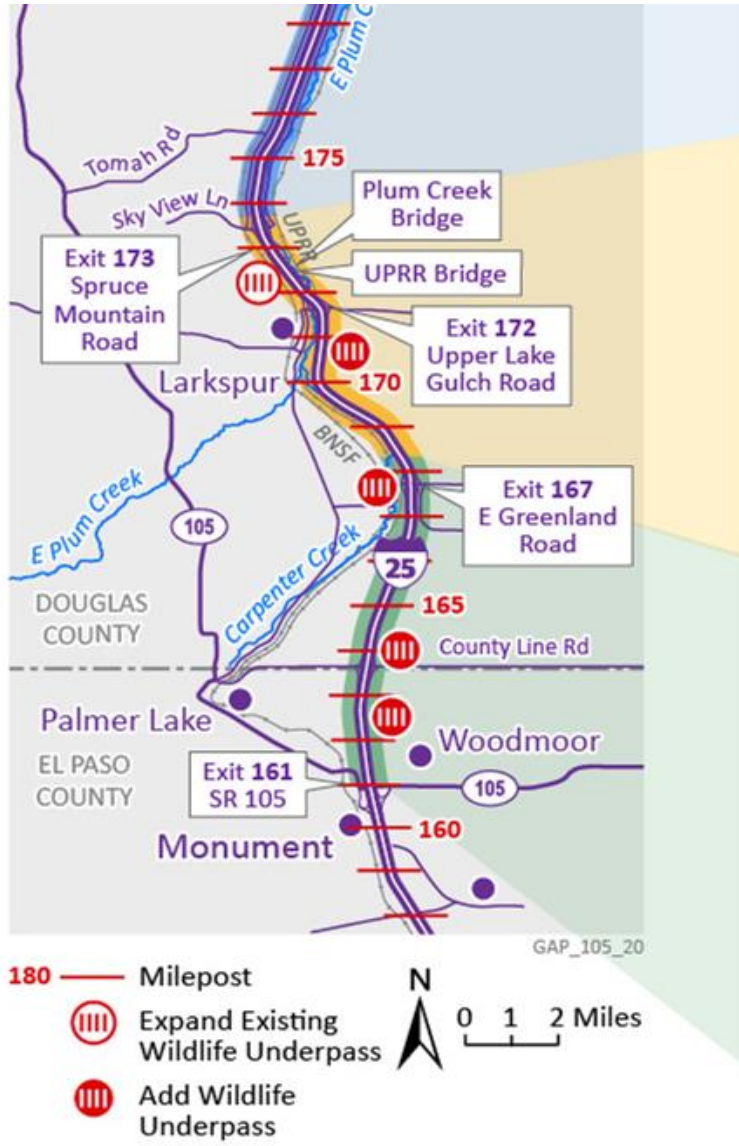
## Scenario #2 - High Major Capital Projects

- \$110M per year (for three years) in rural paving = \$330M
- \$395M per year (for three years) in major capital projects = \$1.185B
- Multimodal
  - Emphasize mobility hubs associated with major capital projects
  - Reduced investment in lane striping, sidewalks and shelter/stop improvements for peds, bicycles & transit associated with rural paving.





# I-25 South Gap: Monument to Castle Rock



- General improvement - 18 miles of widening and overlay
- Funding ~ \$374M:

INFRA	\$ 65.0	M
SB267	\$ 149.5	M
SB1	\$ 92.0	M
Freight	\$ 10.5	M
BE	\$ ~8.0	M
Faster Safety	\$ 11.2	M
Resurf	\$ 2.8	M
CO Prk&Wildlife	\$ 0.05	M
Local Agencies	\$ 35.0	M



# I-25 South Gap: Monument to Castle Rock

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***Safety Elements:*** Widen inside and outside shoulders, add and improve auxiliary lanes, 4 new and one improved wildlife crossing, add wildlife fencing, replace 3 structurally deficient bridges, improve chain up station, add 5 mile climbing lane

***Mobility:*** Add an Express Lane (EL) with 4 ft buffer each direction, EL accommodates transit and HOV3+, improve Greenland underpass to accommodate more than 1 vehicle at a time

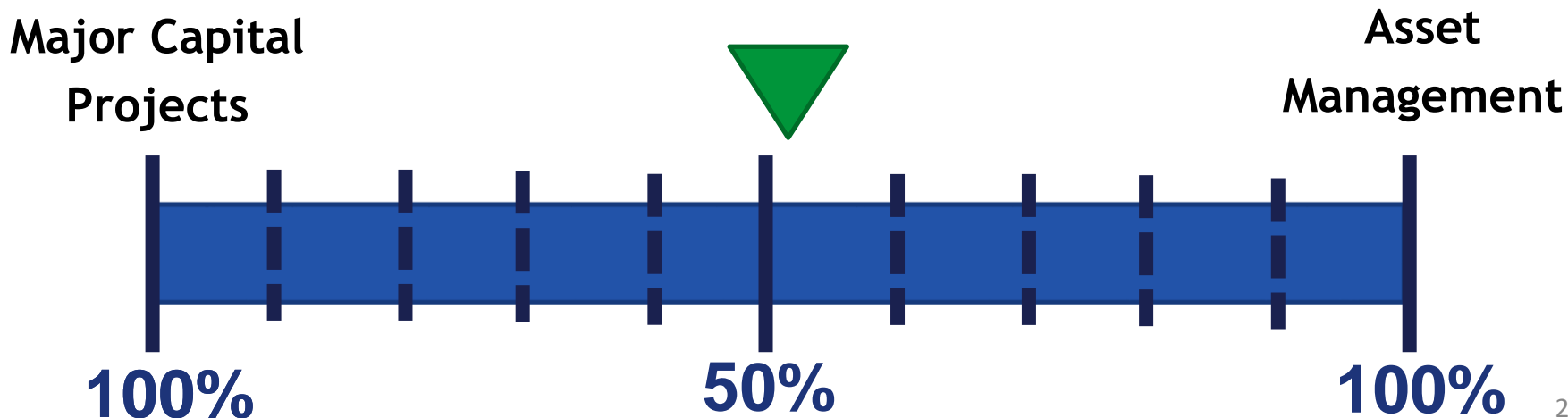
***Asset Management:*** Resurface 18 miles of interstate, replace 3 additional bridges, improve drainage, water quality, lighting, ITS and signage



# Programmatic Asset Management vs. Major Capital Projects

## Scenario #3 - Funding Mix

- \$272M per year (for three years) in surface treatment funds = \$816M
  - \$110M per year (for three years) in rural paving = \$330M
- \$233M per year (for three years) in major mobility projects = \$700M
- Multimodal
  - Blend of lane striping, sidewalks, and shelter/stop improvements to accommodate pedestrians, bicycles, and transit
  - Moderate number of mobility hubs





# What's Next?

## Senate Bill 267 - Senate Bill 262 – Senate Bill 1

### September

- TC overview of funding sources
- Outline scenarios for TC discussion
- Regions develop major capital project recommendations

### October

- Review proposed new funding project list with TC
- Review modeling and project benefits with TC

### November

- TC approval of new funding project list

### December

- TC adoption of new funding project list